

National Park Service  
U.S. Department of the Interior



# Channel Islands National Park Business Plan

Fiscal Year 2004



Photo courtesy of Bill Dewey



Tim Haul, timhaulphotography.com

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Channel Islands National Park

# Introduction

The purpose of business planning in the National Park Service is to improve the abilities of parks to more clearly communicate their financial status with principal stakeholders. A business plan answers such questions as: What is the business of this park unit? How much money does this park need to be operated within appropriate standards? This plan demonstrates the functional responsibilities, operational standards, and financial picture of the park.

The business planning process is undertaken to accomplish three main tasks. First, it provides the park with a synopsis of its funding history. Second, it presents a clear, detailed picture of the state of current park operations and funding. Finally, it outlines park priorities and funding strategies.

A common methodology is applied by all parks developing business plans. Park activities are organized into five functional areas, which describe all areas of business for which a park is responsible. The functional areas are then further broken down into forty programs. This allows the park to move beyond the traditional National Park Service method of reporting expenditures in terms of fund sources, and instead report expenditures in terms of activities. As a result, the park can communicate its financial situation more clearly to external audiences. Furthermore, using the same forty-program structure for all parks provides a needed measure of comparability across park units.

This process is aided by the use of an Electronic Performance Support System, a web-based application that allows parks to complete the data collection, analysis, and document production with step-by-step instruction.

Completing the business plan process not only enables a park to produce a powerful communication tool, but also provides park management with financial and operational baseline knowledge for future decision-making.

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## Superintendent's Foreword



This year marks the 25th anniversary of Channel Islands National Park, an appropriate time to reflect on how far we've come and to chart a new course for the future. The direction of the park is currently being addressed with the update of the General Management Plan (GMP), due to be finalized in 2006. The GMP provides guidance in park management for a fifteen to twenty-year horizon, whereas this business plan lays out a fiscal roadmap for the next five years, incorporating the park's priorities, needs, and ideas in a financial analysis. When developing the plan, we looked at what was achievable over this five year time frame.

As stewards, we must know and understand park resources, restore and maintain those resources when they are in decline, protect resources and mitigate threats to them, and, finally, connect the park and its resources to the public. These four pillars of stewardship offer a way to analyze the structure and function of operations relative to the park's mission and purpose.

The cornerstone of management is knowledge and understanding of the park and its environments, both natural and cultural. Until managers adequately understand park ecosystems, they can treat only symptoms of stress. Treating environmental symptoms alone would be like a physician treating a patient suffering from high blood pressure by 'bleeding' to lower blood volume, rather than altering the patient's diet, exercise, and lifestyle to reduce the underlying causes of hypertension.

Channel Islands National Park has invested significant resources in developing a 'vital signs' monitoring program to not only define the symptoms of stress, but to identify the causes of abnormal changes, facilitating an ecosystem-level approach to restoration, protection, and mitigation. The vital signs monitoring program has already provided early warnings and now guides restoration by evaluating the performance of treatments. Increased understanding provides novel information and stories that help connect the park to people with personal experiences. As a result of these investments, we have now begun to address island and ocean restoration

issues at the ecosystem level, and we are capable of conveying engaging stories to build public support.

This business plan helps describe the current capacity of the park to know, restore, protect, and connect the park to the public. It also provides a near-term projection of the park's fiscal capacity and ability to meet future challenges. The plan provides knowledge and understanding of the park's capacity to do work, just as the vital signs monitoring improves ecological understanding.

Connecting the park to the people is critical to our stewardship. Approximately fifteen million people speaking over 170 different languages live within 100 miles of the park. Channel Islands National Park, along with our network parks, Santa Monica National Recreation Area and Cabrillo National Monument, must take on the increasing role of making parks relevant to an ever-changing and diverse population. Increased partnership brings more research, more friends, and more people who understand and appreciate park values. This will be an emphasis for us going forward. In addition, expanding our volunteer programs will bring about a stronger connection between the resource and the community.

In conclusion, I want to thank the Business Plan Initiative consultant team, our management team, and other key staff for the many hours of hard work in the preparation of this business plan. I hope that you, the stakeholder, will take time to review this plan and get to know a part of your heritage – Channel Islands National Park.

Best Regards,

A handwritten signature in black ink, reading "Russell E. Galipeau, Jr." in a cursive script.

Russell E. Galipeau, Jr.  
Superintendent

# Executive Summary

This business plan comes from a comprehensive review covering operations and expenditures at Channel Islands National Park. The business plan captures the financial condition of the park in FY2004, and is intended to provide insights to help the park chart its course over the next five years. Specifically, this plan describes operational expenditures and investments, identifies funding gaps, and outlines key investment and operational priorities for the future. It also describes potential strategies for decreasing park costs and increasing partnerships and revenue.

As outlined in its mission statement, four long-term goals guide park operations:

- *Know* the resource – creating a better understanding through ecological inventorying and monitoring;
- *Protect* the resource and visitors –emphasizing conservation, safety, and sustainable practices;
- *Restore* the resource – emphasizing restoration and management guided by scientific monitoring; and
- *Connect* the park to the public – strengthening public outreach and understanding to build a solid constituency.

The business plan process revealed the following key outcomes:

**Resource protection receives the largest portion of park funding.** Over 40% of total available funding in FY2004, approximately \$2.5 million, was allocated to programs such as ecological monitoring, management and restoration, and the protection of natural and cultural resources. Because the park's enabling legislation emphasizes the protection of natural and cultural resources, the park has placed a strong emphasis on understanding, protecting, and restoring its resources. These resource programs are considered to be a fundamental part of park operations. Furthermore, the park does not have an extensive number of facilities to support.

**The park falls significantly short of financial resources to create a connection between the park and the public.** Visitor experience and enjoyment programs have only 60% of the personnel required to ensure visitor safety and strengthen

public outreach and understanding, making these programs a priority area for the future.

**Rising personnel costs have placed significant constraints on the park's base funding.** Between 1996 and 2004, the average cost of salary and benefits per FTE rose 22%. Appropriated base increases have not kept up with increasing salary levels, locality pay, and federally mandated benefits changes. Because of these increasing costs, the park has been forced to lapse a number of positions and has lost flexibility in spending.

**Park base increases have been primarily tied to projects, not to general operations.** The park has been fortunate to receive several base increases over the past fifteen years; for example, the park received some operational money with the acquisition of both Santa Rosa and Santa Cruz Islands. More recently, base increases have been targeted to support specific programs (for example: biological inventory and monitoring), not general operations and maintenance activities. As the park's area and budget have grown, so too have its responsibilities. Finding the financial resources to continue funding increasing operational and maintenance costs will be an ongoing challenge for the park.

**The park relies heavily on both appropriated non-base and non-appropriated funding.** Non-base funds account for 37% of the park's total financial resources in FY2004. While this funding has expanded the park's ability to accomplish programs and allows for flexibility in spending, it also creates challenges for future planning, as these funds are not necessarily consistent or reliable from year to year.

**Maintaining long-term flexibility is critical to the park's ability to successfully manage its resources.** As unexpected needs arise, such as rapid species declines or major boat repairs, the park must absorb the costs of these needs into its current operating budget. In FY2004, the park addressed this challenge by diverting funding from one program area to another. However, the park's base funding, which is primarily dedicated to personnel salaries, has limited flexibility.



The park is home to a unique variety of terrestrial and marine environments.

# Park Overview

## The Park at a Glance



A view of Santa Rosa Island.

The eight Channel Islands and waters off the southern California coast encompass unique terrestrial and marine environments. Five of these islands - Anacapa, Santa Cruz, Santa Rosa, San Miguel, and Santa Barbara - and the submerged lands and waters within one nautical mile off their shores are protected as Channel Islands National Park. The park includes approximately 250,000 acres of land and sea, protecting a rich array of natural and cultural resources.

### Natural resources

Often called the Galapagos of North America, the Channel Islands are home to plants and animals found nowhere else in the world. The isolation of the islands has allowed plants and animals to evolve into new species different from relatives on the mainland. Almost 10% of island plants are endemic. Additionally, animals such as the island fox and the Santa Cruz Island scrub jay can only be found on these islands.

Nearly half of the park lies underwater. This marine environment is one of the most productive on earth, as the confluence of ocean currents brings nutrients from the ocean depths into warm sunlight. Giant kelp forests, seagrass beds, rocky reefs and sub-marine canyons contain more than 1,000 species of fish, invertebrates, and algae.

The protected isolation of the islands' beaches, tidepools, and sheer cliffs and the prolific ocean waters surrounding the park provide essential nesting and feeding grounds for 99% of sea bird species in California. Twenty-six species of marine mammals can be found in the park. Over 100,000 seals and sea lions take up residence in the park, and the largest concentration of blue whales in the world migrates through the adjacent Santa Barbara Channel during the summer.

### Cultural resources

The natural abundance of the islands has attracted humans for nearly 13,000 years. More than 2,500 archeological sites have been identified within park boundaries. The oldest dated human remains in North America were discovered on Santa Rosa Island, while Spanish explorers, 19th century hunters, ranchers, fishers, and the military all played a role in the islands' history. Historic ranches, military structures, and more than 100 known shipwrecks remain as examples of California's rich heritage.

### Island oasis in an urban area

Today, approximately 15 million people live within 100 miles of the islands. The waters of the channel provide, as well as limit, public access to the islands. Each year, thousands of scuba divers explore island reefs and kelp forests. Boaters shelter in more than 100 secluded anchorages. Thousands of day visitors and campers enjoy island vistas, trails, sea caves, and tidepools. Researchers also find the island environments to be an accessible laboratory of unequalled quality.



Channel Islands' ocean waters are home to an incredible diversity of marine plants and animals.

The park receives over 500,000 visitors annually. Half of the visitors come to the mainland visitor center, which contains exhibits on island resources and serves as a hub for education and outreach. Park outreach programs also include community events and school presentations. Additionally, the underwater video program on Anacapa Island allows visitors to experience the park's unique marine resources without getting wet.

### **Preserving a unique environment**

Human activities have altered island and marine environments in the park, and the rate of change has accelerated over the past 300 years. Air and water pollution from nearby metropolitan areas threaten fragile island ecosystems. Ranching on the islands introduced non-native animals and plants, threatening endemic species and accelerating erosion. The park's waters support one of California's best fisheries, yielding 20% of the State's catch.

## **Enabling Legislation**

The Channel Islands National Park was established by Congress in 1980 through Public Law 96-199 to "protect the nationally significant natural scenic, wildlife, marine, ecological, archaeological, cultural, and scientific values of the Channel Islands in the State of California." The park is to be "administered on a low-intensity, limited-entry basis." Additionally, in recognition of the special fragility and sensitivity of park resources, Congress intended "that visitor use within the park be limited to assure negligible adverse impact on the park resources."

The park engages in a number of activities to protect rare species and restore native island habitats and natural processes. Park biologists are working to save the endangered island fox from the brink of extinction, eradicate non-native species, re-establish bald eagles, and restore native vegetation. Approximately 20% of the park's waters are Marine Reserves where no fishing is permitted, protecting marine species and habitat, while the park's inventory and monitoring guides the management of other important park resources.

The park's unusual position as an isolated backcountry park located in close proximity to a dense urban area presents extensive opportunities for outreach and education, while simultaneously posing unique challenges in resource protection and management. This business plan addresses how park operations can work to sustain these priorities into the future.

## **Mission Statement**

The mission of Channel Islands National Park is to protect and interpret the natural ecosystems and cultural values of the Channel Islands and adjacent marine waters and to provide present and future generations appropriate opportunities to experience and understand park resources and values.

## **Channel Islands National Park Inventory**

### **General**

- 249,353 acres, half of which are marine
- Five islands: Anacapa, Santa Rosa, Santa Cruz, San Miguel, Santa Barbara

### **Biodiversity**

- Over 2,000 species of plants and animals
- 145 species unique to the islands
- 26 marine mammal species
- 31 threatened and endangered species

### **Important Natural Features**

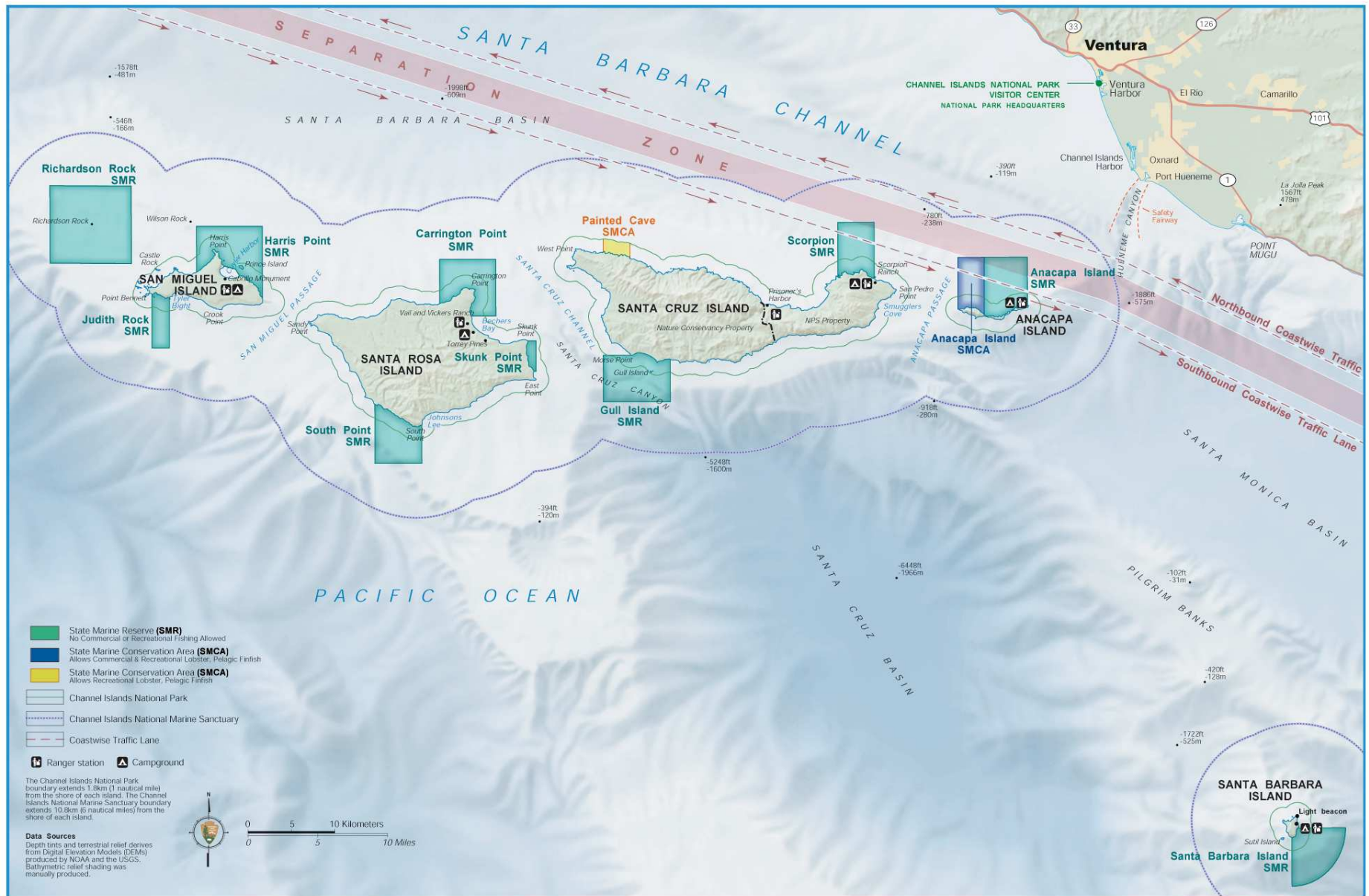
- The only brown pelican nesting area on the west coast
- Sea caves, tidepools, and kelp forests
- Whale migration corridor
- Pinniped breeding colonies
- Eolian landforms and caliche
- Confluence of cool northern and warm southern ocean currents

### **Cultural Resources**

- 13,000 years of human history
- More than 2,500 archaeological sites including North America's oldest dated human remains.
- Ranching, military, and Coast Guard architecture and landscape features



## Channel Islands National Park Map





# Historical Context

## Fund Source Analysis

Funding for activities at Channel Islands National Park comes from four sources. **Appropriated base funding**, authorized by Congress, provides annual operating expenses for permanent staff and recurring costs related to the exclusive responsibilities of the park. **Appropriated non-base** monies are allocated annually on a competitive basis to support one-time projects or investments through specific Federal program funding sources. **Reimbursable** funds result from cost recovery for services provided to other entities. **Revenue** is generated through visitor and concessionaire fees, as well as donations. Monetary settlements under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and other various environmental laws have also been a source of revenue for the park.

When not adjusted for inflation, total funding for the park has increased at a compound annual growth rate of 5% over the last ten years. During this time, the following trends are worth noting:

### Base funding comparison

While the park’s base funding has generally increased since FY1996, the park’s other fund source expenditures have increased at a higher rate. This has led to the park’s appropriated base funding, as a percentage of total expenditures, to decrease from a high of 69% in FY1996 to a low of 54% as recently as FY2003. By FY2004, this funding source comprised 63% of total expenditures. As appropriated base funding has diminished relative to funding from all sources, the obligations and programs supported by the park have simultaneously grown.

### Fluctuations in non-base, revenue, and reimbursable funding

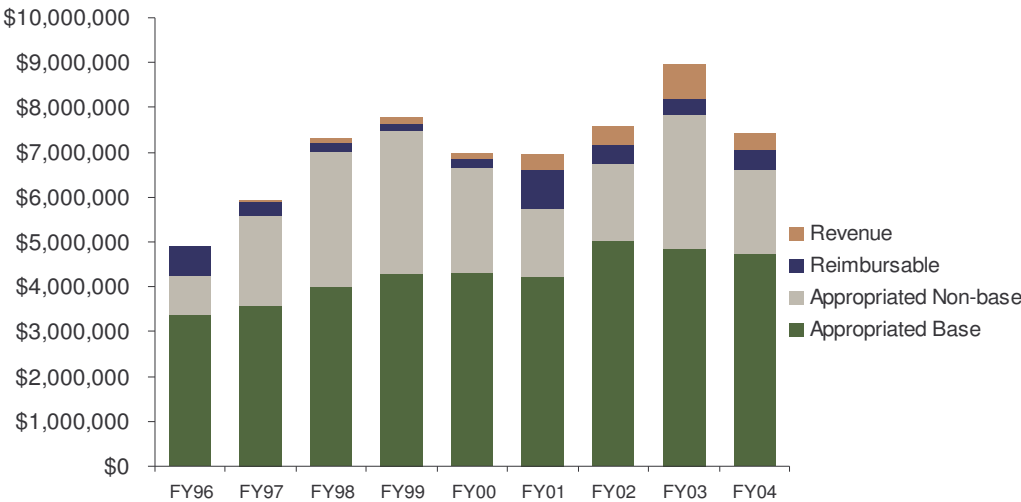
Given the growing role of non-base, revenue, and reimbursable funding, their year-to-year variability presents a significant management challenge. The unpredictability of revenue and reimbursable funds and the short cycle of non-base funding strains the park’s ability to meet operational needs like providing visitor services and monitoring ecosystem health.

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*The variability and short cycle of non-base funding presents a significant management challenge.*

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Historical Expenditures by Fund Source



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*Each base increase comes with constraints tied to programs and the park must absorb rising operating costs.*

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## Adjusted Base Budget

Appropriated base funding is intended to cover permanent personnel costs and non-labor expenses necessary for daily park operation. This funding source has grown from \$937,800 in FY1985 to \$4,900,000 in FY2004. This equates to a compound annual growth rate of 8.7% for FY1985 through FY2004. When adjusted for inflation using the Consumer Price Index (CPI), this growth rate is 5.6%.

This budget increase is typical for a park growing in area and program scope. Since 1985, the park has increased its size from 10,663 island acres to 124,102 island acres (excluding approximately 125,000 acres of marine waters) with the acquisition of Santa Rosa Island and eastern Santa Cruz Island, while its duties have increased in response to a growing understanding of the resources it must protect. Combined, these additions brought significant infrastructural, logistical, operational, interpretative, administrative, and natural and cultural resource management responsibilities. Nonetheless, a per acre analysis of lands managed by the park shows that CPI-adjusted funding has remained flat.

The largest increases in base funding supported:

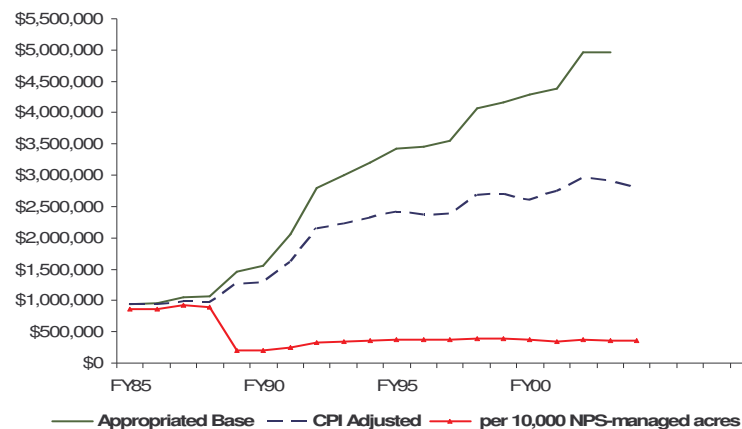
- FY1989 – New operational needs related to the

- acquisition of Santa Rosa Island. \$300,000;
- FY1991 – General base increase for visitor services, resource protection, and fuel. \$400,000;
- FY1992 – Natural resources inventory and monitoring efforts and support for maintenance. \$510,000;
- FY1998 – New operational needs related to the acquisition of eastern Santa Cruz Island. \$387,000;
- FY2002 – Ecological restoration efforts on Santa Cruz Island, including feral pig removal. \$498,000.

Because each of these increases in base funding comes with constraints and expectations tied to specific programs, the park must absorb the rising costs of existing daily operating expenses, including salary, benefits, and costs such as fuel, supplies, and administration.

Looking ahead, the park received a base increase of one million dollars for FY2005. This funding will support recovery efforts for the endangered island fox and law enforcement rangers for the newly established Marine Protected Areas within the park.

**Appropriated Base Budget History**



## Analysis of Real Growth

The chart below illustrates the increase in the park's real labor costs between FY1996 and FY2004. The years prior to FY1996 are less comparable to the present due to changes in accounting systems.

The National Park Service measures staff hours in terms of full time equivalents (FTE), or 2,080 hours of work annually. In FY1996, the total contribution of all park permanent staff equaled 59.54 FTE. During this period, the average salary and benefits for one FTE were \$55,922 in inflation-adjusted 2004 dollars.

By FY2004, the park experienced a reduction in its permanent workforce by 6.99 FTE, leaving a total of 52.55 FTE. During the same period, the average cost in salary and benefits per FTE rose by \$15,960 to \$71,883, an increase of 22%. In the end, the cost savings associated with fewer FTE were more than offset by the increase in employee compensation. This growth in labor costs can be attributed to:

- **Salary increases and locality pay**

Employee costs are affected by congressionally-mandated annual salary increases of up to 4% and locality pay increases of 1.5 %, although mandated, these increases are not fully funded. The Los Angeles metropolitan area has the second highest cost of living in the US;

- **Professionalization of workforce**

Protecting, interpreting, and supporting the park's resources increasingly requires highly qualified personnel. The park follows recent service-wide initiatives to professionalize many positions in law enforcement, administrative, and resource management careers; and

- **Mandated benefits changes**

In 1984, the Federal Government launched the Federal Employee Retirement System (FERS) to replace the Civil Service Retirement System (CSRS). Because average benefits under CSRS are 12% of salary, while benefits under FERS are 35% of salary, benefit costs in the park have risen and will continue to rise as older employees retire and are replaced by staff whose benefits are calculated at the higher rate.



Older employees receive different benefits packages. As the current workforce is replaced, costs of benefits will rise.

Seasonal, term, and part-time staff to investments are not included in this analysis; these staff totaled 9.95 FTE in FY2004.

### Operational Costs: Appropriated Base Funding

	FY 1996 Actual Costs			FY 1996 Inflation Adjusted		FY 2004 Actual Costs		Net Cost Increase	
	FTE	Average	Total	Average	Total	Average	Total	Average	Total
<b>FY1996 Staff</b>	59.54								
Salary		\$37,536	\$2,234,870	\$45,215	\$2,692,099	\$56,388	\$2,963,186	\$11,173	\$271,087
Benefits		\$8,889	\$529,240	\$10,707	\$637,517	\$15,495	\$814,245	\$4,787	\$176,728
<b>Subtotal</b>		<b>\$46,424</b>	<b>\$2,764,110</b>	<b>\$55,922</b>	<b>\$3,329,616</b>	<b>\$71,883</b>	<b>\$3,777,431</b>	<b>\$15,960</b>	<b>\$447,814</b>
<b>New Staff</b>	-6.99								
Salary						\$56,388	(\$394,152)	\$56,388	(\$394,152)
Benefits						\$15,495	(\$108,308)	\$15,495	(\$108,308)
<b>Subtotal</b>						<b>\$71,883</b>	<b>(\$502,459)</b>	<b>\$71,883</b>	<b>(\$502,459)</b>
<b>Total Labor</b>	52.55		<b>\$2,764,110</b>		<b>\$3,329,616</b>		<b>\$3,274,971</b>		<b>(\$54,645)</b>
<b>Non-Labor</b>			<b>\$607,807</b>		<b>\$732,157</b>		<b>\$928,005</b>		<b>\$195,847</b>
<b>Total</b>			<b>\$3,371,917</b>		<b>\$4,061,774</b>		<b>\$4,202,976</b>		<b>\$141,202</b>



## Fixed Cost Analysis

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*Limited discretionary funding creates extensive backlogs and further reliance on non-base funding.*

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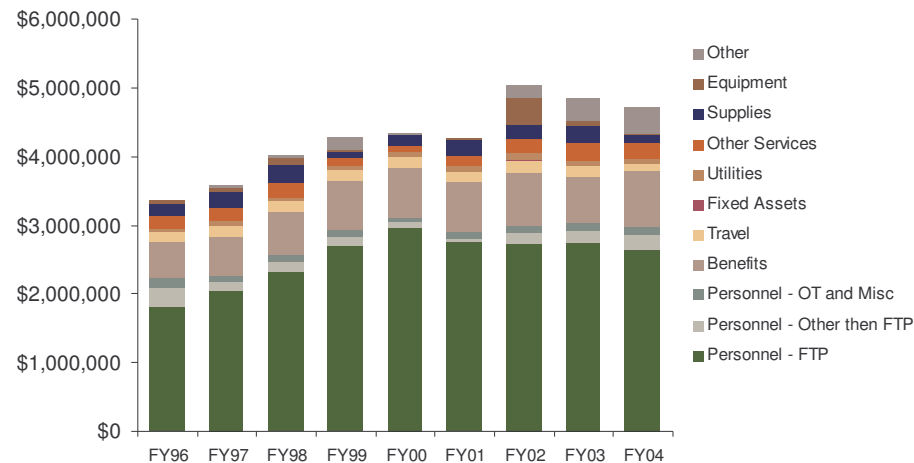
Fixed costs are funds unavailable for discretionary spending during any given fiscal year. For Channel Islands National Park, fixed costs include salary and benefits for all permanent staff, utilities, required travel, and most contract services and mandated training. From FY1996 through FY2004, these expenses accounted for approximately 80% of the appropriated base budget.

Channel Islands' Fixed Costs contain two unusual components: travel costs incurred to carry out daily operations within the park and long-term contracts. Travel costs include mainland-based staff travel to the islands, island-based staff who live on the islands and travel to the mainland, as well as inter-island travel. Employees who live on an island receive per diems when they travel within the park. The second component, long-term contracts, refers to expenses which arise in conjunction with the park's work with several non-NPS organizations. An example is the long-term contract between Channel Islands and The Nature Conservancy, which partially owns Santa Cruz Island. This contract is fixed because of both its length and its necessity.

The remaining portion of the base budget is available to park managers as discretionary funds. These funds enable the park to hire seasonal staff, support staff overtime, transport staff, and purchase supplies, equipment, and assets. Park managers must use these funds to simultaneously support shifting priorities, respond to critical needs as they arise, and manage operations in the face of uncertainties. When the park is faced with sudden, unexpected challenges such as sizable boat repairs or a collapse in the population of an endangered species, the park must shift personnel and funds away from ecosystem monitoring, transportation support, maintenance tasks, resource protection, interpretation, and administrative support functions to address critical needs. Repeated cycles of these shifts create extensive backlogs and further reliance on non-base funding.

The amount and proportion of discretionary spending by category varies from year to year. For example, the costs associated with the use of seasonal employees decreased around FY2000 and have recently increased. Expenditures on equipment rose in FY2002 to support the initial restoration of Santa Cruz Island, while other expenditures have risen since FY2002 to support cooperative agreements related to the

**Appropriated Base Expenditures by Category**



# Analysis of Expenditures

The following graph depicts total park expenditures from all funding sources, including appropriated base, non-base, reimbursables, and revenue. Total park expenditures are up 51% since FY1996.

Total personnel costs, including salary and benefits for full-time, part-time, term, and seasonal employees, averages 57% of total expenditures.

The travel, supplies, and other services categories represent relatively significant portions of total expenditures because of the high costs associated with getting staff and equipment to the islands. These categories include the costs of fuel, vessel operation and maintenance, and contracted transportation services such as chartered aircraft.

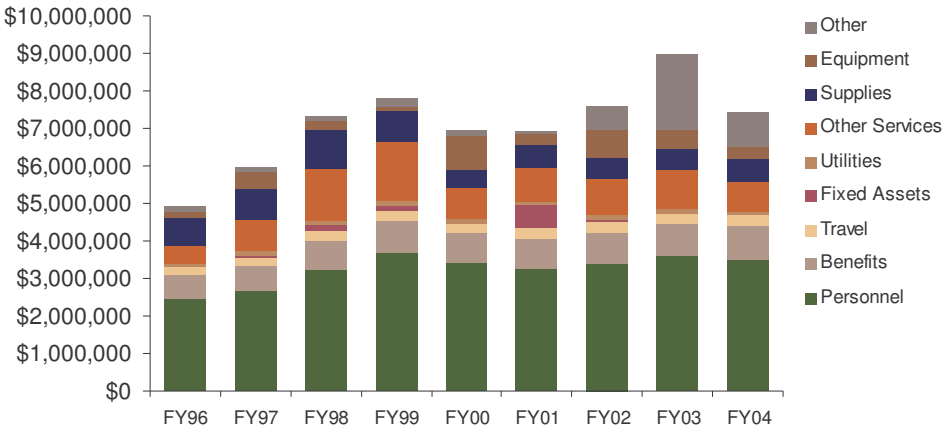
Significant fixed assets expenditures in FY2001 reflect the replacement of the park’s vessel the *Sea Ranger* with the *Sea Ranger II*.

Other expenditures include cooperative agreements and research grants. Expenditures in this category are more significant during the last three years as the park increasingly relies upon partnerships to accomplish its mission and goals. Partnership projects encompass a variety of work, including recently re-establishing of bald eagles to the islands with the Institute for Wildlife Studies and the construction of pig-proof fencing on Santa Cruz Island in cooperation with The Nature Conservancy.



Unloading the *Surf Ranger*: getting equipment and supplies to the islands requires significant effort. The park transports approximately 1000 tons of supplies and materials annually.

Historical Expenditures by Category



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*Half of the over 500,000 annual visitors visit the islands.*

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## Visitation

The park receives between 500,000 and 650,000 visitors per year. Half of these visitors experience the park through the mainland visitor center in Ventura, while the remaining visits are spread throughout the five islands.

Visitors to the islands arrive via the park's concessionaires or by private boat. Given the variety of accessibility issues, park-mandated entry limits, and limited amenities, each island receives a different combination of these two modes of visitation.

Santa Cruz Island, with numerous coves and campground space for 250, is currently the most visited island in the park. Visitation there has increased annually since the acquisition of island parcels in 1996 and 1998. Anacapa Island, situated closest to the mainland, is also a popular destination for a consistent number of day visitors. Combined, visits to Anacapa and Santa Cruz islands account for 90% of island visitation since FY2001.

Santa Rosa, Santa Barbara, and San Miguel islands are located well off the California coast and therefore see limited visitation due to lower demand and infrequent concessionaire

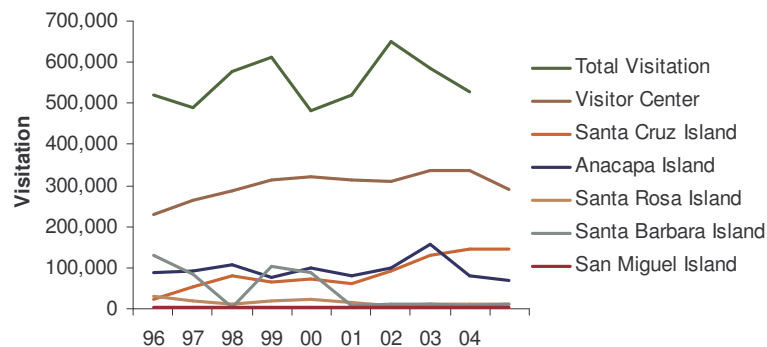
service. Visitation to Santa Barbara Island decreased significantly when cruise ships stopped visiting the island in the late 1990s.

Visitation to the islands and visitor center peaks from April to September, particularly during holiday weekends. Winter visitation is sustained by whale watching tours and increased school participation in park activities.

**Average Monthly Visitation**



**Historical Visitation**



Because of the challenges of visiting the islands, the park has developed and will soon expand its abilities to share its resources with the broader public through projects such as the internet distribution of Anacapa Island's underwater interpretive program.

While visitation to the visitor center and through concessionaire services is easy to track, the dispersed nature of private boat visitation may result in undercounting.



# Current Park Operations

This business plan differentiates between two types of expenditures: Operations and Maintenance, and Investments. Operations and Maintenance requirements are those funds needed to carry out everyday operations at a park unit. Some examples include annual payroll costs, janitorial operations, managing a telecommunications network, and a long-term ecological monitoring program.

On the other hand, investments are significant one-time costs that parks incur in order to fix current problems or provide for future park management. Investments may include projects such as a resource inventory necessary to establish a credible baseline before beginning a monitoring program, as well as constructing a new building. This section of the plan focuses on the Operations and Maintenance activities of the park. In order to describe park operations for this business plan, park activities were divided into five functional areas, which describe the five areas of business for which the park is responsible. The five functional areas are:

- Resource Protection
- Visitor Experience and Enjoyment
- Facility Operations
- Maintenance
- Management and Administration

These are then further broken down into forty programs that more precisely describe park operations. Programs are general in order to cover a broad suite of activities that should be occurring in the park.

The next component of the business planning process is the completion of a detail sheet for each program. These forms describe the daily activities performed by the 62.5 FTE (both permanent and non-permanent personnel) that worked in the park in FY2004 and the totality of financial need associated with them.

Statements of work are developed to describe the suite of activities encompassed by the program. Then operational

standards are generated to describe the duties and responsibilities required to meet the mission critical functions of the program as stated in the statement of work. These standards are then used to determine the total financial resources required to perform the standard tasks of the program. The final step in this section is to compare current park activities to the operational standards to identify the gaps between required and available resources.

The following pages discuss each of the functional areas in detail.



An elephant seal bull on San Miguel Island. Due to the island's remoteness, it is a major haul-out and pupping area for pinnipeds.

## Park Functional Areas

**Resource Protection** encompasses all activities related to the management, preservation and protection of the park's cultural and natural resources. Activities include research, ecological monitoring, restoration efforts, species-specific management programs, wild land fire management, archives and collections management, historic site preservation and protection, and information integration activities.

**Visitor Experience & Enjoyment** includes all park activities directly related to providing visitors with a safe and educational experience while at the park. It includes all interpretation, education, visitor center management, interpretive media, in-park concessions management, fee collection, and visitor safety services.

**Facility Operations** includes all activities required to manage and operate the park's infrastructure on a daily basis. Buildings, roads, trails, utilities, and campgrounds require a range of operational activities from basic sanitation to minor repairs to water testing.

**Maintenance** includes activities directed solely to prolonging the life of park assets and infrastructure through substantial repair, replacement or rehabilitation of park assets, such as buildings, roads, trails, utilities, fleet vehicles, and equipment.

**Management & Administration** encompasses all park-wide management and administrative support activities. It includes all park communications and external affairs activities, park level planning, human resource management, information technology, park leadership, and financial management.

## Resource Protection



Kelp forests flourish in the waters of Channel Islands National Park.

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*The unique marine, terrestrial, archeological, and historical assets of the park make resource protection a high priority.*

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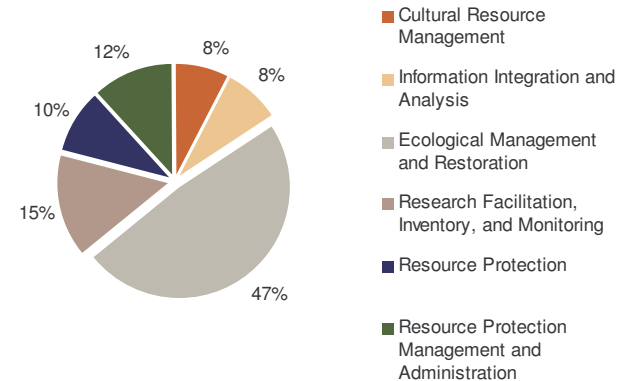
Channel Islands National Park contains unique marine, terrestrial, archeological, and historic assets, making resource protection a high priority for the park. The isolation of the islands has allowed for the evolution and continued existence of many unique species. In addition, the park is responsible for the protection of many threatened and endangered species that could face extinction if island ecosystems are not preserved and restored. In 1991, the park was declared an inventory and monitoring prototype park, making it a valuable source of information on the status of marine and coastal natural resources, but also requiring significant staff time and financial resources.

Resource Protection requires the most financial resources of any functional area in the park, accounting for over one-third of the park's 62.5 FTE. In FY2004, the park faced a shortfall of \$776,245 including 8.8 FTE to accomplish operational standards related to the protection of natural and cultural resources, including monitoring, restoration, and law enforcement activities. (Amount next to program indicates the total Available Funding in FY2004.)

### **Ecological Management and Restoration** (\$1,206,193)

The goal of this program is to manage for unimpaired natural resources, processes, and diversity, as well as to ensure that park values are maintained, restored, and protected. This is the largest program in Resource Protection, requiring 42% of funds in this functional area. The park is currently engaged in extensive programs to restore island habitat and native species, as well as to protect threatened and endangered species. Other activities include fire management and the restoration of old development sites and unused roads. In FY2004, a number of personnel were diverted into this program area to address the sudden near-extinction of the island fox, raising the total funds available in this program above what is normally required. It is anticipated that as fox recovery is achieved, staff time in this program will be gradually reduced over the next five to eight years to support ecological monitoring. This program currently faces a deficit of 1.2 FTE or \$188,428.

**Resource Protection  
FY2004 Expenditures by Program**



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
31.4	\$3,288,862	22.7	\$2,512,619	8.79	\$776,243

### **Research Facilitation, Inventory, and Monitoring** (\$376,520)

In 1991, Channel Island National Park was designated by the NPS as a Long-term Ecological Monitoring site. As such, the park conducts inventory and monitoring to better understand the nature, condition, and dynamics of natural resources, providing reference points for comparisons over time. This program helps ensure that the park has adequate knowledge of the status of its natural resources to achieve stewardship objectives for these resources, and to integrate this knowledge into planning and management. Currently, the park lacks the funding and personnel required to conduct its twelve vital signs monitoring protocols. It is anticipated that some existing funds will shift to supplement ecological monitoring as fox recovery is achieved and non-native pigs are removed from Santa Cruz Island. Additional short-term needs are for a

physical scientist to oversee monitoring water, air, weather, and soils and biological technicians for marine monitoring. A shortfall of \$98,153 was identified in this program area.

#### **Resource Protection (\$239,508)**

This program encompasses activities relating to natural and cultural resource protection and patrolling by law enforcement rangers. This includes vehicle, foot, and marine patrols for marine protected areas, terrestrial resources, archeological sites, and historic structures. The island-based nature of ranger protection activities creates unique logistical challenges, requiring a higher level of staffing for ranger safety and effective resource protection. Two additional law enforcement rangers are needed for patrolling the park's marine protected areas.

#### **Cultural Resource Management (\$198,052)**

The park contains more than 2,500 archeological sites, more than 100 known shipwrecks, historic sheep and cattle ranching landscapes, a 1932 light station, and twentieth-century military installations. Natural and cultural history collections from the islands are curated at several local institutions. An additional

1.4 FTE is needed to convert the current archeologist from a subject-to-furlough position to permanent full-time, to manage archeological monitoring and research, and the annual mitigation of archeological sites. Curatorial staff is needed to curate artifacts and maintain the park's archives. A preservation specialist will work with facilities management to maintain historic structures.

#### **Information Integration and Analysis (\$200,514)**

This program refers to the development, maintenance, and accessibility of information about natural and cultural resources. Inventory and monitoring programs generate a continuous flow of data that must be managed and made accessible to staff and researchers. The park faces a deficit of 1 FTE in this program area, requiring a database manager and additional resources for Geographic Information Systems (GIS).

#### **Management and Administration (\$291,831)**

The park is currently short of personnel for effective oversight of natural and cultural resource programs, requiring an additional 1.5 FTE for resource management and administration. This includes staff to coordinate and manage budget activities, project permitting and tracking, data management, research permitting, coordination with external agencies involved in cooperative research and management, and resource management review.



A Chumash re-creation of a journey across the Santa Barbara Channel to Santa Cruz Island using a tomol.

### **Marine Protected Areas (MPAs)**

In 2001, the white abalone became the first marine invertebrate to be federally listed as an endangered species. Over-fishing caused the collapse of this and many other marine species, a decline that has been documented by over twenty years of ecological monitoring in the park's waters.

The NPS requested that California create a network of State marine reserves, a designation that prohibits all commercial and recreational fishing. In 2003, following a three-year consensus-seeking process, the California Fish and Game Commission established nine marine reserves in Channel Islands National Park. The reserves cover approximately 20% of park waters. These reserves aim to enhance depleted populations, restore impaired ecosystems, and rebuild collapsed fisheries.

With this increased protection came increased enforcement responsibilities. The park received additional short-term funding of \$49,000 in FY2004 for reserve-related law enforcement. However, the park still lacked adequate marine protection. In FY2005, the park was granted a permanent base increase of \$326,000 to support MPA activities.

The park currently collaborates with state and federal agencies to measure the performance of these new reserves. Together with the park's inventory and monitoring program, it is hoped that this information and increased understanding will improve conservation in the park.



## Visitor Experience & Enjoyment



An interpretive ranger leads a program for school children around the mainland visitor center's tidepool.

Given its proximity to Los Angeles and the popularity of southern California as a tourist destination, Channel Islands National Park has the opportunity to reach a large constituency. However, the cold ocean waters separating the park from the mainland pose a significant obstacle for visitor access and enjoyment. In addition to the islands' isolation, park-mandated limited entry restricts the number of people who can directly experience the park. Bringing the park to the people is an important challenge.

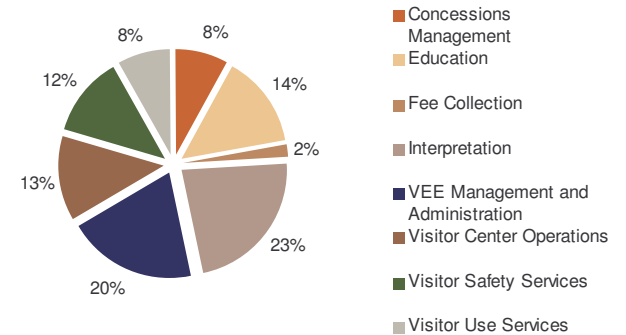
Half of the park's annual visitors come to the mainland visitor center, which serves as the primary base for education and outreach for the park. Outreach programs also include community events and school presentations. On the islands, interpretive rangers and volunteers provide programs for visitors, including briefings, campground presentations, interpretive walks, and a live underwater interpretive program.

In FY2004, the park's identified need was 17.4 FTE or \$1,327,764 to achieve the standards of Visitor Experience and Enjoyment. The park faced a substantial personnel shortfall, with a deficit of 6.3 FTE, the equivalent of 60% of the current staff.

### Education (\$115,208)

The park's Education program serves the diverse population of Ventura and Santa Barbara counties and reaches more than 20,000 students and teachers each year through its visitor center and in-class programs. The park offers an extensive range of programs, including many that are curriculum-based. These programs are aimed at introducing students to the NPS mission of preserving and protecting natural and cultural resources. Other offerings include educational fairs, Junior Ranger programs, and teacher workshops. The park requires the addition of nearly 2 FTE, including a full-time education coordinator and an additional park guide, in order to effectively accomplish these goals.

Visitor Experience & Enjoyment  
FY2004 Expenditures by Program



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
17.4	\$1,327,764	11.1	\$821,434	6.3	\$506,331

### Interpretation (\$185,617)

The goal of interpretive programs and media is to foster public understanding and appreciation of the park's resources. Formal interpretive activities include talks at the mainland visitor center, off-site community presentations, an underwater interpretive program on Anacapa Island, as well as orientations, guided walks, and campground presentations on park islands. Informal interpretive activities include unscheduled regular contacts with visitors at critical resource sites, visitor centers, campgrounds, concessionaire boats, whale watching vessels, and off-site community events. Interpretive media includes visitor center exhibits, waysides, publications, signs, videos, and photos.

The park is short \$102,337 to meet its operational standards in Interpretation, and it relies extremely heavily on the use of volunteers. In particular, additional funds are needed for an interpretive media specialist and funds to support management and training in the volunteer program.

#### **Visitor Center Operations (\$108,367)**

The park's interpretive rangers manage and staff the primary visitor center at Ventura Harbor and the Santa Barbara Outdoors Visitor Contact station. The purpose of these facilities is to prepare visitors for their visit, enhance their park experience, and educate them about park themes and issues. As half of park visitors never make it to the islands, the mainland visitor centers are a crucial point for bringing park resources to the public. This program area faces a relatively minor financial shortfall of approximately \$12,095, as visitor center operations are effectively enhanced by volunteer staffing.

#### **Visitor Safety Services (\$101,578)**

The goal of this program is to provide for public safety within the park without significantly diminishing a visitor's ability to experience an undeveloped, wild ocean and natural and historic landscape. Visitor Safety Services experienced a significant shortfall, requiring an additional \$197,406 in FY2004, and an additional 2.3 FTE to meet its operational



To provide visitors with a chance to experience the underwater world, interpretive rangers record underwater footage at Anacapa Island...

standards in FY2004. Additional island-based law enforcement rangers are needed, as many of the islands remain unstaffed or under-staffed for significant periods of time, even during seasons of heavy use.

#### **VEE Management and Administration (\$161,340)**

This program area involves the oversight of visitor experience activities. This includes management of both law enforcement and interpretive rangers, planning, scheduling, training, supervision, evaluation, budgeting, and report requirements for law enforcement and interpretation. Oversight of volunteer resources also fell largely into this program area in FY2004, as the majority of park volunteers are involved in education and interpretive activities.

#### **Concessions Management (\$66,921)**

Park staff provides for concessions program management, including concessionaire contract oversight, auditing, inspection, prospectus and contract development, and commercial use permitting. These duties are currently collateral duties to several administrative staff. The park needs a concessions manager to focus on cultivating relationships with vendors and concessionaires. Concession activities are discussed further in the Strategies section on page 36.



... while volunteer interpreters host a live video screening up above. Volunteers provide an essential contribution to this and other interpretive programs.

### **Distance Learning**

The park sees distance learning as the future of education and outreach, linking remote park resources with local and distant communities. Through the use of new technologies, the park has taken great strides in connecting the park to visitors who are unable to actually set foot within park boundaries. These strides are not just taken on land however, but also twenty-five feet deep in the lush kelp forests of Anacapa Island's landing cove, where the underwater interpretive program has been broadcasting live video footage for twenty years.

Without ever getting wet, audiences on the docks of Anacapa have been able to take an underwater "hike" through the kelp forests guided by a park ranger. Fitted with a special SCUBA facemask, the underwater ranger can communicate with the live audience and answer questions about the marine ecosystem. The images are transmitted to television screens at the landing cove dock.

The program can be also be transmitted via microwave frequency to the visitor center, where audiences don't even have to leave the shore to see this unique habitat for underwater plants and animals. The park and its partners are looking into new ways to distribute programs like this via cable TV and the Internet, allowing the public and students in classrooms throughout California and across the country to participate in the program.

## Facility Operations



The Sisar Ridge radio repeater is the backbone of the park's radio system.

Channel Islands National Park's facilities and infrastructure are distributed across five islands and a mainland headquarters and visitor center. Facilities Operations staff support the daily operation of buildings, campgrounds, grounds, roads, trails, vehicles, vessels, and utilities at all of these locations. Anacapa, Santa Cruz, and Santa Rosa islands have multiple staff with specific Facilities Operations and Maintenance responsibilities. San Miguel and Santa Barbara islands are both staffed by one employee, typically a law enforcement ranger, who performs Facility Operations and Maintenance tasks as a collateral duty.

During FY2004, the park spent \$1,122,898 towards the operation of its facilities and infrastructure, representing 18% of the total expenditures of the park. Nonetheless, the park requires an additional \$354,239 to fully support Facilities Operations shortfalls and offset rising costs in fuel and utilities. By performing Facilities Operations activities now, the park can reduce the need to do larger, more expensive repairs in the future.

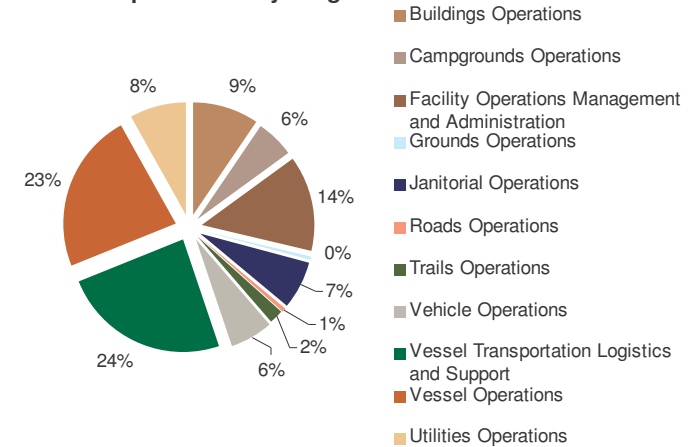
### Vessel Operations (\$261,206)

The park currently operates a fleet of four vessels to transport park staff, researchers, partners, and their cargo. This fleet includes: the 100 foot *Ocean Ranger* and the fifty-eight foot *Sea Ranger*, both used for transporting people and cargo; the *Pacific Ranger*, a fifty-six foot research and diving vessel; and the *Surf Ranger*, a seventy-four foot landing craft used to transport vehicles and large cargo. Vessel Operations encompass all activities related to the daily operation of this fleet. Labor supporting the operation of these boats is sufficient; however, with the rising costs of fuel, a deficit of \$66,191 has been identified in non-labor funding.

### Vessel Transportation Logistics and Support (\$270,746)

All island-based staff spend time on logistics during each tour, including preparing and loading personal gear bags, tagging equipment, and manifesting cargo. In addition, volunteers and

**Facility Operation  
FY2004 Expenditures by Program**



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
16.2	\$1,477,137	13.93	\$1,122,898	2.3	\$354,239



Unloading the *Ocean Ranger* on Santa Rosa Island. Each piece of cargo is handled 4 times before it reaches its destination.



park-sponsored guests require assistance from park staff in coordinating these logistical needs. In the dock area, park staff must receive shipments and prepare cargo on a daily basis. Before each vessel trip, staff must move cargo with forklifts, load vessels with cranes, and balance loads and deck weight based on boat specifications.

#### **Utilities Operations (\$89,465)**

The offshore islands have no access to public utilities services. Utilities Operations expenditures support the inspection, service, and oversight necessary to ensure reliable and safe water, electricity, and sewage treatment on the islands. For example, the public drinking water systems on Santa Cruz and Santa Rosa islands require daily testing and treatment from trained park staff. Other utility systems include electrical distribution, wells, water storage, septic systems, and power generation using diesel, solar, and wind systems. Additionally, staff in this program maintain headquarters HVAC systems.

#### **Vehicle Operations (\$68,286)**

In conjunction with the Government Services Agency (GSA), the park supports the daily operation, service, and inspection of eleven vehicles at Ventura headquarters and twenty-three total vehicles on Santa Cruz and Santa Rosa islands. Using staff and contracts, the park also services nine cranes and fourteen pieces of heavy equipment, including one grader, five bulldozers, and several backhoes and tractors. Combined, these vehicles and equipment ensure the mobility of staff and materials on the islands and move vital supplies from vessels to land.



Wind shelters protect overnight visitors from harsh winds at the San Miguel Island campground.

#### **Campground Operations (\$63,364)**

The park operates a total of six campgrounds: a frontcountry campground on each island and one backcountry campground on Santa Cruz Island. The park works to ensure that these campgrounds and their associated bathrooms, picnic tables, platforms, wind shelters, and grounds are kept safe, sanitary, and enjoyable. Due to the presence of Hantavirus on the islands, the park provides and maintains food storage boxes for every campsite. These boxes minimize camper's exposure to infected mice and protect their food from aggressive seabirds.

#### **Janitorial Operations (\$79,399)**

Janitorial Operations expenditures provide daily sanitary services at the mainland headquarters, including trash and recycling services, restroom cleaning, window washing, and dusting and vacuuming. On the islands, the park supports eighteen pit toilets and three restrooms. Because all visitors are expected to pack out their trash, no trash collection services are provided to the general public on the islands. The park maintains dumpsters on Santa Cruz and Santa Rosa islands for staff and operations trash disposal.

## **Transportation and Logistics**

The offshore isolation of the Channel Islands adds a layer of logistical complexity. The closest island, Anacapa, is separated from park headquarters by fourteen miles of open ocean, while San Miguel, the farthest island, lies fifty-five miles offshore. As a result, the park must rely heavily on marine and air transportation for daily operations, imposing a significant recurring, fixed cost.

Transporting people and cargo to the islands requires substantial time and elaborate systems of scheduling and logistics. The park does not have the finances to run boats or contract planes whenever necessary, and coordinating schedules necessitates extensive planning. Further, safely loading cargo takes significant time and effort. Each item must be handled at least four times, with captains and crew spending at least an hour per stop loading, unloading, and balancing cargo.

These challenges are further exacerbated by rising fuel costs. In 2004, the park ran boats to the islands four days a week; however, in 2005 it was forced to cut the number of island trips in half. To meet transportation needs, the park increased the use of park concessionaires to transport personnel, often leaving cargo behind. Transportation and logistics are inevitable operational challenges on an island, let alone on multiple islands, and the park is still working to determine the most efficient and effective means of dealing with this challenge.

## Maintenance

Maintenance activities prolong the life of the park's assets through long-term rehabilitation and repair work, preventive maintenance, and equipment and infrastructure replacement.

Maintenance expenditures accounted for \$606,078 or 10% of the park's total operating budget, during FY2004. In the absence of sufficient funding, maintenance is deferred year after year, creating backlogs and degrading the condition of facilities and infrastructure over time. To prevent these backlogs, maintenance activities require an additional \$278,393 annually to address the needs of park assets, primarily in trail, vessel, and building maintenance. This funding is above and beyond the investment funds required to cover cyclic maintenance and major repairs. These funds are available on a regional level and are not included in this analysis.

Despite significant increases in the infrastructure associated with new land acquisitions, Maintenance has received few targeted appropriated base funding increases for supporting acquired assets or park investments. These investments include staff housing and visitor facilities such as trails.

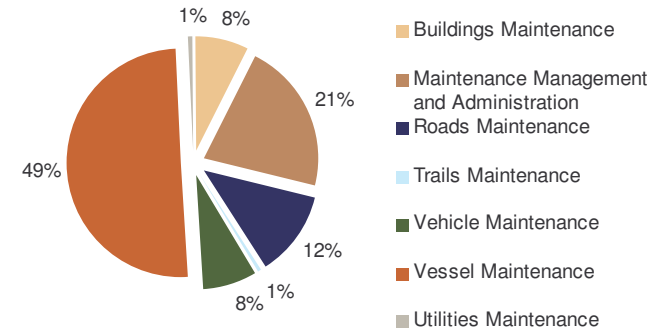
### Vessel Maintenance (\$309,234)

Regular maintenance activities ensure that each of the park's vessels can perform its daily duties and respond to critical park needs. The park performs or contracts the routine service and repair of all vessel systems including engine, hull, drive train, and navigation system maintenance. Additionally, each vessel must receive an annual haul-out inspection and rehabilitation. Further Vessel Maintenance funds will support tasks to extend the operational life of the park marine fleet. The park requires a port engineer to better complete preventative maintenance on the vessels and manage logistics.



Excavation for septic system to support comfort station within Water Canyon Campground, Santa Rosa Island.

**Maintenance  
FY2004 Expenditures by Program**



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
6.7	\$884,465	3.1	\$606,072	3.6	\$278,393

### Trails Maintenance (\$3,571)

Channel Islands National Park contains a total of forty-five miles of trails on all the islands, including boardwalks and bridges on Anacapa, San Miguel, and Santa Rosa islands. Significant winter rainfall and heavy use requires that the park's trail network receive substantial annual maintenance, such as repairing and replacing stairs, water bars, boardwalks, bridges, decking, and culverts. Without this work, the trail system will deteriorate over time and become a hazard for visitors. The park has identified a relatively significant shortfall related to its trail system. Between Trails Maintenance and Trails Operations, this deficit totals \$84,596, the funding required to support two seasonal trail workers.

### **Roads Maintenance (\$72,508)**

The twenty-one miles of road on Santa Cruz Island and fifty-four miles of road on Santa Rosa Island require continual operational and regular maintenance support to ensure their safe condition. Roads Maintenance activities include stabilizing banks and shoulders, replacing culverts, repairing bridges, and improving drainage.

The park maintains three 2,200 foot-long Office of Air Services-approved landing strips. These assets require periodic grading, a particularly challenging task on San Miguel Island because of the lack of permanent grading equipment.

The park also supports six piers and five moorings. Each pier must be maintained through piling, ladder, and decking replacement and repair. The park's buoys and moorings require biannual overhaul, including chain replacement, sandblasting, repainting, and resetting.



Temporary housing on Santa Cruz Island can support fifteen employees, partners, or researchers. Permanent housing is planned.

### **Building Maintenance (\$46,832)**

Park structures include the 14,000 square foot combined headquarters and visitor center facility and three satellite offices. On the islands, the park maintains nineteen housing units and seventy-two other structures. Components of each park building, particularly roofs and exteriors, must receive periodic maintenance and repairs. The park has identified a \$64,941 shortfall for Buildings Maintenance, primarily related to operations and backlog maintenance needs on eastern Santa Cruz Island and headquarters facilities.

### **Maintenance Management and Administration (\$130,383)**

Maintenance Management and Administration oversees park-wide maintenance activities through inventory, budgeting, work planning, reporting, and procurement. The NPS initiative to reduce maintenance backlogs through a computerized inventory and prioritization program, the Facilities Management Software System (FMSS), requires additional Maintenance Management and Administration funds totaling \$37,114.



A US Marine Corps H-53 transporting a 27,000-pound motor grader to San Miguel Island for landing strip maintenance.

## **Partnerships**

Partnerships are a tradition of the NPS and Channel Islands National Park, playing an essential role in park management. Partners range from government agencies to private entities, each providing unique skills and insights.

The US Navy and the park co-manage San Miguel Island. Inventory and monitoring of marine resources is accomplished with the help of NOAA (National Marine Fisheries and Sanctuary programs) and California Fish and Game. The U.S. Coast Guard also provides support with emergency medical and search and rescue services.

The park also partners with an extensive number of groups outside the government, such as: The Nature Conservancy, which owns over 70% of Santa Cruz Island and, as a result, is a co-manager of the island's resources; the Chumash people, who offer significant assistance to the park, preserving the rich history of the Chumash on the islands; and the Ventura and Santa Barbara School districts, which provide much needed assistance in education and interpretive services.

In the future, the park will continue to look for new areas in which interested constituents can assist the park through effective relationships and new ideas and opportunities. Additionally, it will continue to work with its many current partners, and look to forge new relationships in the future.



## Management and Administration



Administrative staff provide necessary support to park operations.

Managing Channel Islands National Park requires the coordination of daily internal operations while simultaneously working with numerous external agencies and organizations. The administrative staff provides essential services that enable park employees to focus on their own functional duties. Management and Administration programs' expenses accounted for approximately 17% of total park expenditures in FY2004, employing nearly 12 FTE at a cost of \$1,021,182. Even with these funds at its disposal, Management and Administration was 23% short of its requirements in FY2004.

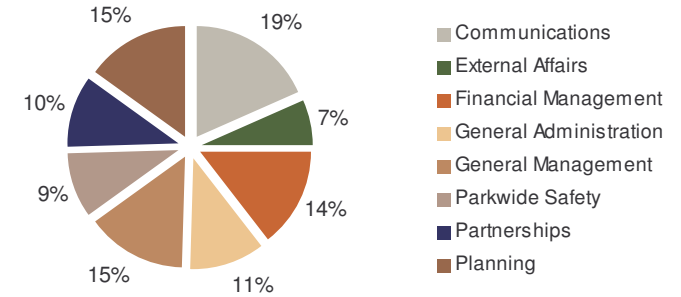
### **Communications** (\$187,598)

The highly dispersed nature of the park makes Communications a major component of park management, requiring the most fiscal resources in the Management and Administration functional area. Communications hardware is handled by the park's IT Specialist, while the dispatch function coordinates scheduling and logistics. The park employs its own dispatch operations, handling 149 mobile radios, nine base radios, and five fixed repeaters, all utilizing one microwave system to facilitate radio and wireless communication among park staff, partners and emergency services. The park also manages fifty-three cellular phones.

### **External Affairs** (\$68,250)

External Affairs deal with relations regarding park programs, management and other issues. This program includes communications with the media, as well as building relationships with community organizations and government agencies. Currently, the Chief of Interpretation is assigned the collateral duty of serving as the Public Information Officer (PIO) and is unable to devote the time needed to effectively accomplish this task. The park has recognized the deficiency in this area as one of its most critical needs. The addition of a dedicated PIO would allow for better contact with park stakeholders and communication with the general public.

**Management & Administration  
FY2004 Expenditures by Program**



Total Required		Available		Shortfall	
FTE	Funds	FTE	Funds	FTE	Funds
14.9	\$1,329,583	11.8	\$1,021,182	3.1	\$308,401

### **Financial Management** (\$147,132)

Financial Management ensures proper oversight of the park's budget, reflecting over 180 accounts and providing technical support to managers as they formulate, analyze, and track their respective budgets. Other activities include oversight of the park's travel and credit card programs. The business plan analysis and opportunities due to changes in staffing have allowed the park to consolidate Financial Management responsibilities.



### **General Administration and General Management (\$261,908)**

General Administration refers to those activities the park completes in the areas of procurement, contracting, property management, and clerical tasks such as mail. The park is deficient with regard to property management and requires additional personnel resources to meet its operational standards. General Management includes all activities related to staff development, including all human resources activities such as recruitment, hiring, employee relations, and benefit management. General Management also includes environmental leadership programs such as recycling and alternative energy use.



Half of the park's annual visitors come to the headquarters and visitor center in Ventura.

### **Parkwide Safety (\$96,133)**

The safety program implements policy and establishes guidelines to protect the safety of employees. It is also responsible for environmental compliance of hazardous materials. The program is currently managed by the Chief of Transportation as a collateral duty and by the Dive Safety Officer. A part-time safety officer is needed to more efficiently administer this program. Alternatively, a dedicated safety officer could be hired and shared among with the network parks—Santa Monica Mountains National Recreation Area and Cabrillo National Monument. The deficit (.4 FTE) in this program reflects the shared safety officer.

### **Planning (\$153,720)**

The planning program contains structural and programmatic development, including NEPA analyses, responses to legal threats, design of new buildings and architectural needs, and land acquisition. Natural and cultural resource management staff currently complete compliance tasks, taking time away from their primary duties. A planning and compliance specialist would allow the park to better plan for the future.

### **Partnerships (\$106,448)**

The park actively engages in partnerships and cooperative agreements with a host of government agencies, educational institutions, private and non-profit organizations, volunteers, and landowners. These partnerships are created to promote the best practices, achieve shared goals, coordinate resources, and raise funds for the parks. The partnerships function in the park currently lacks a dedicated staff member to manage the park's extensive volunteer base and is deficient in management time to address complex interagency relationships.

### **The NPS Scorecard**

The NPS Washington Office has recently developed a new strategic tool to assist NPS managers in the evaluation and prioritization of unit funding requests. This tool, the NPS Scorecard, is designed to provide information on unit performance and efficiency across a variety of indicators. This information is collected in a centralized database and is designed to be used by Regional and Washington leadership as they prioritize these funding requests. The performance and efficiency measures found in the Scorecard include indicators such as the visitor contact rate (number of visitor contacts per recreational visit), the cost of collection rate (amount spent to collect each dollar in entrance fees), the percent of invasive plant species contained, and dozens of other criteria across a broad spectrum of park operational areas. Park units can be compared to one another individually, to all parks within a given Region, or to parks of similar budget size or business model.

The Scorecard tool is currently being piloted at NPS Regional Offices and selected park units nationwide in an effort to ground truth the Scorecard measures and validate existing data. Channel Islands National Park is actively working with NPS leadership and the Scorecard Working Group to provide feedback on performance and efficiency measures, and will be using the tool once it is available to evaluate its OFS funding requests for FY2008.

# Financials

## Summary Financial Statement

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*In FY2004, the park spent over \$6 million on operations.*

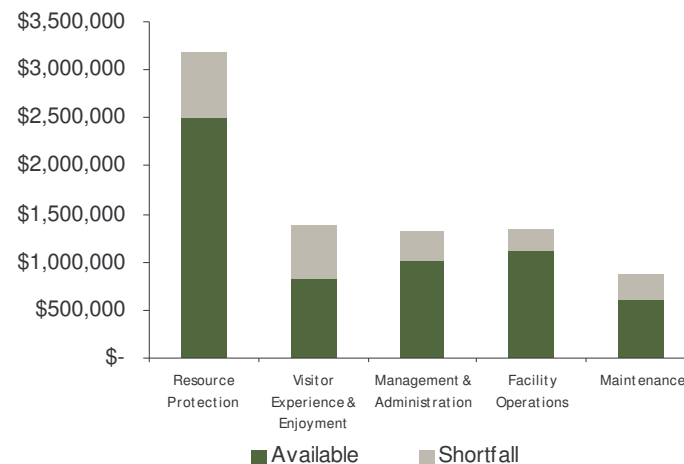
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The table on the opposite page serves as the operating statement for the park's five functional areas and forty programs. From left to right, the first two columns indicate the required staff and funds needed in FY2004 to meet the operational standards of each program. The second group of columns indicates the staff and funds that were actually available in FY2004, broken out by fund source (appropriated base, appropriated non-base, reimbursable, and revenue). Finally, the last two columns compute the difference between what the park required to meet primary responsibilities and what financial resources were actually provided.

### Overview Analysis

In FY2004, the park spent over \$6 million on operations. These expenditures were insufficient to meet the operating standards for most programs. The park experienced a shortfall of approximately \$2.2 million, or 27%. In terms of staff, the park utilized 62.5 FTE in FY2004, and required an additional 24 FTE. One time capital investments totaling \$1.3 million are excluded from this analysis, and are explained in detail in the Funded Investment section of the business plan.

**FY2004 Required Funds by Functional Area**



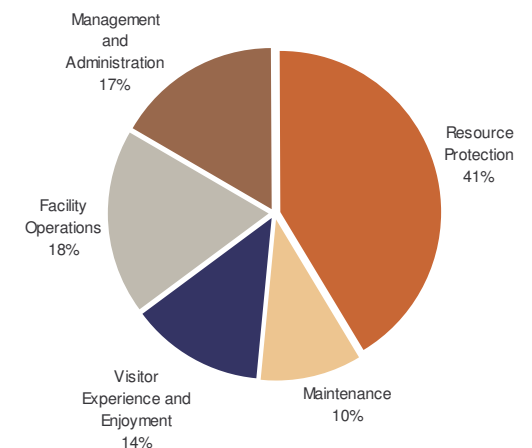
### Shortfall Analysis

Resource Protection, which accounted for over 41% of expenses for the park in FY2004, has the largest shortfall, with a deficit of approximately \$776,245. The Visitor Experience and Enjoyment function was the second most under-funded functional area in terms of dollars, but proportionally was the most under-funded, requiring a funding increase of nearly 62%. This shortfall was driven by the need for additional law enforcement, education, and interpretation rangers.

Management and Administration deficits did not rank high compared to the other functional areas, but two of its programs, External Affairs and Partnerships, suffered in FY2004. The lack of resources in these programs contributed to the inability of the park to create an effective Friends group or to take advantage of a number of other partnership opportunities. The needs in Maintenance and Facility Operations are disguised by the fact that they cross two functional areas and numerous programs. While Vessel Maintenance is an obvious need for the park, five more FTE are required to meet the current operational standards.

Note that the Summary Financial Statements deals directly with annual estimated deficits over the next five years only.

**FY2004 Expenditures by Function Area**



FUNCTIONAL AREAS AND PROGRAMS	REQUIRED		AVAILABLE				SURPLUS/(DEFICIT)			
	FTE	Funds	APPROPRIATED		NON-APPROPRIATED		TOTAL		FTE	Funds
			Base	Non-base	Reimbursable	Revenue				
Resource Protection										
Cultural Resource Management	3.1	\$289,383	\$112,221	\$73,075	\$1,931	\$10,824	1.6	\$198,052	(1.4)	(\$91,331)
Information Integration and Analysis	3.7	\$294,292	\$176,070	\$16,222	\$7,845	\$377	2.7	\$200,514	(1.0)	(\$93,777)
Ecological Management and Restoration	8.8	\$1,394,621	\$511,894	\$527,179	-\$9,451	\$176,571	7.6	\$1,206,193	(1.2)	(\$188,428)
Research Facilitation, Inventory, and Monitoring	6.4	\$474,673	\$299,439	\$26,490	\$24,692	\$25,899	4.9	\$376,520	(1.5)	(\$98,153)
Resource Protection	5.0	\$425,711	\$184,190	\$46,425	-\$86	\$8,979	2.8	\$239,508	(2.1)	(\$186,203)
Resource Protection Management and Administration	4.5	\$410,184	\$227,221	\$44,261	-\$384	\$20,733	3.0	\$291,831	(1.5)	(\$118,352)
Subtotal	31.4	\$3,288,862	\$1,511,035	\$733,652	\$24,546	\$243,384	22.7	\$2,512,618	(8.8)	(\$776,245)
Maintenance										
Buildings Maintenance	1.0	\$111,773	\$13,372	\$4,430	\$38,407	-\$9,376	0.3	\$46,832	(0.7)	(\$64,941)
Maintenance Management and Administration	1.2	\$167,497	\$62,605	\$60,736	\$4,371	\$2,671	0.8	\$130,383	(0.4)	(\$37,114)
Roads Maintenance	0.4	\$77,644	\$20,323	\$315	\$51,597	\$274	0.3	\$72,508	(0.0)	(\$5,136)
Trails Maintenance	1.1	\$51,013	\$3,389	\$55	\$99	\$27	0.1	\$3,571	(1.0)	(\$47,443)
Vehicle Maintenance	0.3	\$56,287	\$34,195	\$759	\$11,751	\$456	0.2	\$47,161	(0.0)	(\$9,126)
Vessel Maintenance	2.3	\$390,619	\$89,028	\$31,468	\$169,701	\$19,038	1.3	\$309,234	(1.0)	(\$81,385)
Utilities Maintenance	0.4	\$29,632	\$1,892	\$3,325	-\$1,337	-\$7,492	0.1	-\$3,612	(0.3)	(\$33,243)
Subtotal	6.7	\$884,465	\$224,803	\$101,086	\$274,589	\$5,599	3.1	\$606,078	(3.6)	(\$278,387)
Visitor Experience and Enjoyment										
Concessions Management	0.9	\$77,855	\$57,085	\$849	\$6,660	\$2,327	0.7	\$66,921	(0.2)	(\$10,934)
Education	3.2	\$214,725	\$94,014	\$1,676	-\$588	\$20,106	1.2	\$115,208	(1.9)	(\$99,517)
Fee Collection	0.2	\$14,951	\$15,418	\$206	\$0	\$18	0.3	\$15,642	0.1	\$691
Interpretation	3.5	\$287,954	\$181,470	\$3,372	-\$537	\$1,311	2.8	\$185,617	(0.7)	(\$102,337)
VEE Management and Administration	2.7	\$219,621	\$160,126	\$4,638	-\$841	-\$2,583	2.1	\$161,340	(0.6)	(\$58,282)
Visitor Center Operations	2.3	\$120,462	\$105,713	\$614	-\$244	\$2,285	2.0	\$108,367	(0.3)	(\$12,095)
Visitor Safety Services	3.3	\$298,984	\$75,926	\$13,645	-\$589	\$12,597	1.0	\$101,578	(2.3)	(\$197,406)
Visitor Use Services	1.2	\$93,211	\$57,406	\$7,999	\$19	\$1,353	0.9	\$66,776	(0.3)	(\$26,435)
Subtotal	17.4	\$1,327,764	\$747,158	\$32,999	\$3,880	\$37,413	11.0	\$821,450	(6.3)	(\$506,315)
Facility Operations										
Buildings Operations	1.5	\$113,906	\$101,606	-\$1,528	\$1,489	\$4,447	1.4	\$106,015	(0.1)	(\$7,891)
Campgrounds Operations	1.3	\$100,977	\$42,569	\$5,891	-\$73	\$14,977	0.9	\$63,364	(0.4)	(\$37,613)
Facility Operations Management and Administration	2.3	\$221,677	\$135,241	\$41,324	\$3,475	-\$28,282	2.2	\$151,758	(0.2)	(\$69,918)
Grounds Operations	0.3	\$17,008	\$5,392	-\$61	\$46	\$145	0.1	\$5,523	(0.2)	(\$11,486)
Janitorial Operations	1.2	\$91,741	\$71,334	\$2,147	\$860	\$5,058	1.3	\$79,399	0.1	(\$12,342)
Roads Operations	0.4	\$30,761	\$6,013	-\$307	\$189	\$766	0.1	\$6,662	(0.3)	(\$24,099)
Trails Operations	1.0	\$57,628	\$16,980	\$1,742	\$193	\$1,559	0.3	\$20,475	(0.7)	(\$37,153)
Vehicle Operations	1.3	\$109,964	\$66,597	-\$356	\$459	\$1,586	0.7	\$68,286	(0.6)	(\$41,678)
Vessel Transportation Logistics and Support	3.9	\$302,630	\$262,351	\$3,027	\$4,145	\$1,222	4.0	\$270,746	0.1	(\$31,884)
Vessel Operations	2.3	\$327,397	\$191,825	\$80,576	\$939	-\$12,134	2.3	\$261,206	(0.0)	(\$66,191)
Utilities Operations	0.8	\$103,448	\$80,850	-\$465	\$7,437	\$1,643	0.7	\$89,465	(0.1)	(\$13,982)
Subtotal	16.2	\$1,477,137	\$980,759	\$131,990	\$19,160	-\$9,010	13.9	\$1,122,898	(2.3)	(\$354,239)
Management and Administration										
Communications	2.7	\$195,723	\$181,750	\$414	\$1,011	\$4,423	2.4	\$187,598	(0.3)	(\$8,125)
External Affairs	2.1	\$179,278	\$61,808	\$4,402	\$409	\$1,631	0.8	\$68,250	(1.3)	(\$111,029)
Financial Management	1.3	\$91,352	\$143,557	\$137	\$530	\$2,908	2.1	\$147,132	0.8	\$55,780
General Administration	2.0	\$161,248	\$115,431	\$3,513	-\$250	-\$5,378	1.3	\$113,316	(0.7)	(\$47,932)
General Management	1.6	\$150,820	\$147,739	\$3,420	-\$400	\$2,167	1.7	\$148,592	0.1	(\$2,229)
Parkwide Safety	0.8	\$91,821	\$94,040	\$4,962	-\$332	-\$2,537	1.2	\$96,133	0.4	\$4,311
Partnerships	2.2	\$219,616	\$69,034	\$15,812	\$21,338	\$263	1.0	\$106,448	(1.2)	(\$113,168)
Planning	2.2	\$239,724	\$138,789	\$11,282	\$956	\$2,692	1.3	\$153,720	(0.9)	(\$86,004)
Subtotal	14.9	\$1,329,583	\$952,148	\$43,942	\$23,262	\$1,836	11.8	\$1,021,187	(3.1)	(\$308,395)
Grand Total	86.5	\$8,307,812	\$4,415,904	\$1,043,669	\$345,436	\$279,222	62.5	\$6,084,231	(24.1)	(\$2,223,581)

- This financial statement has been prepared from the books and records of the National Park Service in accordance with NPS accounting policies. The resources available reflect the total operations and maintenance expenses incurred by the park during the last complete fiscal year. The resources required represent the funding needed to operate the park while fully meeting operational standards as defined in business plan supporting documentation. Program requirements are presented as a five-year planning tool based on salary and wage tables from the same fiscal year, given current resource inventories, and the current park infrastructure. Changes resulting from one-time projects and capital improvements (e.g. investments) may have a resulting impact on the operational requirements presented.
- The value of donated materials and in-kind services is not included as an available resource in the financial summary because these materials and services are not only used for required operations. See page 26 for information on the valuation of work performed by volunteers.
- The financial statement presents the available and required resources for the operational activities of the park only. Investment expenditures for capital improvements or other one-time projects are not accounted for in this statement. For information on the park's investment expenditures, see page 28.
- Due to a change in close out accounting practices that occurred service-wide in 2004, the summary financial statement understates the actual dollar amount available to the park in FY2004 by the approximate amount of one pay period, or \$176,800. Consequently, the park's deficit is overstated by this amount and some program areas may show deficits in total available funding.

*The park received 51,393 hours of volunteer support, a financial value equaling \$883,500.*



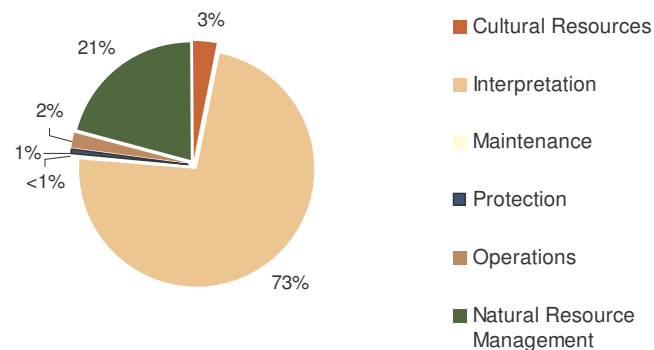
## Volunteer Analysis

Channel Islands National Park relies heavily on volunteers to support important activities. In FY2004, 481 volunteers contributed 51,393 hours to park operations, a financial value of approximately \$883,500 using an NPS estimate of \$17.19 per volunteer hour. The park spent approximately \$11,000 on volunteer materials, compensation, and recognition in 2004, while training, management, and supervision amount to approximately \$150,000 in additional staff time. The park's volunteer base includes a number of highly trained professionals (such as divers and archeologists), providing a net contribution of over \$700,000 or 25 FTE worth of labor to the park.

Volunteers contribute the greatest amount of time to interpretation, which accounts for 73% of volunteer hours. Volunteers staff the mainland visitor centers and provide interpretive and educational programs to visitors and school groups. The park coordinates with the Channel Islands National Marine Sanctuary to share interpretive volunteer resources through the Channel Islands Naturalist Corps program, which provided 104 island naturalists for whale watching and park concessionaire island trips in FY2004. In addition, 31 highly trained NPS Volunteers In Parks (VIPs) assisted with island-based interpretation activities.

Volunteers also provide valuable assistance in managing the park's natural resources. Twenty-one percent of volunteer hours in FY2004 were spent on resource management and restoration activities such as removing invasive ice-plant or building protective fencing for the endangered island fox recovery program. The inventory and monitoring program also benefits from volunteer assistance. Experienced research divers assist with kelp forest monitoring and the Student Conservation Association provides volunteer interns to assist with seabird monitoring and other activities. In addition, volunteers maintain the native plant garden at the mainland visitor center and help staff remote islands when rangers are off-duty.

**CY2004 Volunteer Hours by Category**



The use of volunteers at Channel Islands has increased more than 40% since 1998. The volunteer contribution to interpretive activities has increased most dramatically; in FY2004, volunteers contributed over three times as many interpretive hours as in 1998, while volunteer time spent in resource management was almost unchanged. Volunteer needs in resource management and other program areas are high, but the current part-time coordinator is unable to keep up with park-wide demand, posing challenges for recruiting and publicizing volunteer opportunities outside of the more formal long-term volunteer programs.

Volunteer management does not come without challenges. Volunteers require significant staff time in training and matching volunteer skills with park needs. Transporting large groups of volunteers and providing transportation via boat or plane to the more remote islands also poses significant financial barriers. Still, volunteers provide a tremendous contribution to the park and strengthen the relationship between the park and local communities. There is ample opportunity to expand volunteer activities, particularly if a full-time coordinator and a more centralized and coordinated system can be established for volunteer recruitment and management, enabling the park to continue to benefit from volunteers into the foreseeable future.



## Government Performance and Results Act

The Government Performance and Results Act of 1993 (GPRA) was established with the purpose of making the government more effective and efficient by connecting government-wide goals with operations. In this business plan, park programs are associated with NPS service-wide mission goal categories. The chart below shows how park funding in FY2004 has been used to achieve these goals.

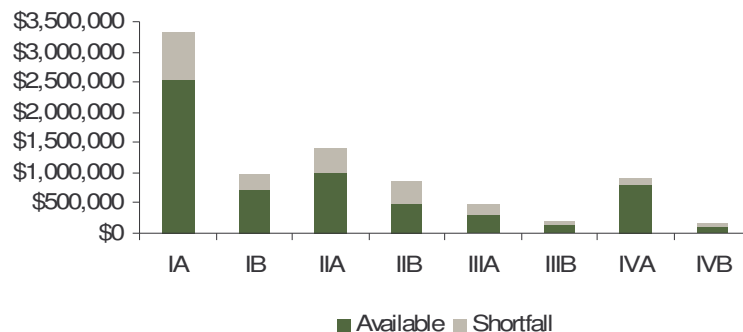
Goal I: Channel Islands National Park is home to unique natural and cultural resources, with an unusually high number of endemic and endangered species. The park has prioritized approximately 54% for its current funding and 48% for its required funding towards preserving these resources. Despite the high allocation of resources to this goal, the park still faces a 25% shortfall in meeting its requirements.

Goal II: The park mission facing the greatest shortfall is promoting an understanding and appreciation of the park - connecting the park to the people. The park lacks 46% of required resources to meet this goal. Visitor safety and accessibility also face a significant shortfall of almost 30%.

Goal III: The allocation of financial resources under this goal reflects formal partnerships with the National Marine Sanctuary and the State of California due to overlapping boundaries within the ocean and the park's legislative authority. It also involves co-management with The Nature Conservancy on Santa Cruz Island. Eight percent of required resources are dedicated to this purpose.

Goal IV: Limited fiscal resources require the park to employ management strategies to make work processes more efficient and effective. The park faces the smallest shortfall (13%) in resources needed for this category.

FY2004 Expenditures by GPRA Goal



### GPRA Mission Goals

#### I. Preserve Park Resources

- a. Natural and Cultural resources and associated values are protected, restored, and maintained in good condition and managed within their broader ecosystem and cultural context.
- b. The National Park Service contributes to knowledge about natural and cultural resources and associated values; management decisions about resources and visitors are based on adequate scholarly and scientific information.

#### II. Provide for the Public Enjoyment and Visitor Experience of Parks

- a. Visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.
- b. Park visitors and the general public understand and appreciate the preservation of parks and their resources for this and future generations.

#### III. Strengthen and Preserve Natural and Cultural Resources and Enhance Recreational Opportunities Managed by Partners

- a. Natural and cultural resources are conserved through formal partnership programs.
- b. Through partnerships with other federal, state, and local agencies and nonprofit organizations, a nationwide system of parks, open space, rivers and trails provides educational, recreational, and conservation benefits for the American people.
- c. Assisted through federal funds and programs, the protection of recreational opportunities is achieved through formal mechanisms to ensure continued access for public recreational use.

#### IV. Ensure Organizational Effectiveness

- a. The National Park Service uses current management practices, systems, and technologies to accomplish its mission.
- b. The National Park Service increases its managerial resources through initiatives and support from other agencies, organizations, and individuals.

## Funded Investments

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*Channel Islands National Park spent \$1,330,528 on strategic projects during FY2004 that will benefit the park and stakeholders for generations to come.*

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The park's new radio system meets security standards and better facilitates communications between remote islands and headquarters.

Channel Islands National Park spent \$1,330,528 on investment projects in FY2004. Investments are one-time expenditures on the labor and non-labor needs of new infrastructure, capital improvement, or informational capital projects. These projects are typically financed by appropriated non-base fund and the fee demonstration program, and supplemented by donations.

Investment projects in FY2004 included:

### **Narrowband radio project (\$240,000)**

Federal regulations required all government agencies to switch their radio systems to narrowband technology by 2005, allowing public safety communications to meet more stringent privacy and security standards. These funds supported the removal and replacement of the park's non-compliant radio system with narrowband technologies.

### **Informational capital projects for natural resource management (\$230,000)**

Following a service-wide initiative, the park contracted the Natural Resource Conservation Service (NRCS) to conduct a three-year, comprehensive soil survey for the islands. The park also contracted researchers to perform a number of smaller studies, including a seed predation study and a survey of the distribution of the endemic live-forever herb species. These projects increase the park's understanding of its resources and facilitate management decisions.

### **Fence construction on Santa Cruz Island (\$92,500)**

Investment funds provided the supplies and labor necessary to construct pig-proof fences on Santa Cruz Island in partnership with The Nature Conservancy. These fences are waist-high and buried underground to prevent pigs from digging underneath. The fences effectively divide the island into five zones, facilitating pig eradication on a compartmental basis.

### **Road rehabilitation on Santa Rosa Island (\$62,000)**

Capital improvements to the road network on Santa Rosa Island included constructing a 60 x 10 foot retaining wall using recycled plastic timbers, installing sediment traps on twenty-two culverts, and replacing culverts at Officer's Beach. These improvements will protect the road network and preserve water quality on the island. The park will spend an additional \$40,000 in FY2005 on this two-year project.



A new retaining wall on Santa Rosa Island will protect the road and preserve water quality.

**Island fox pen construction (\$60,000)**

Investment funds supported the construction of pens to house island foxes as part of the captive breeding program on Santa Cruz, Santa Rosa, and San Miguel islands. Golden eagles, a new predator on the islands, caused the near extinction of the foxes in the late 1990s. Pens were constructed to protect the foxes from predation.



Island fox captive rearing pens on Santa Rosa Island protect this endangered species from golden eagle predation, assisting in their recovery.

**Septic system improvements on Santa Rosa Island (\$27,000)**

Two septic systems on Santa Rosa Island benefited from capital improvement projects during FY2004. Contracted engineers redesigned the campground's entire system and park maintenance staff replaced three sewage lift pumps at Beecher's Bay Historic Ranch.

**Well relocation on Santa Rosa Island (\$28,500)**

The well providing water to park staff and visitors at Beecher's Bay on Santa Rosa Island is located in a floodplain. High streamflow during recent wet winters has threatened to erode the well's foundation; investment funds supported revegetation and bank stabilization activities to protect this asset.

**Investment projects for cultural resource management (\$20,000)**

Investment funds supported the week-long assignment of a team of NPS archivists to catalogue and organize the park's archives and photo collection. Other funds supported an oral history project to document the stories of former island ranchers and residents. Shell midden surveys on San Miguel Island will allow researchers to link changes in the diet of the Chumash people with changes to the island's ecology.

**Seismic retrofit/rehabilitation Scorpion Ranch House (\$175,000)**

Seismic retrofit of the Scorpion Ranch House required installation of a bond beam along the top of the masonry walls; reinforcement of the cripple walls between the front wall and roof; installation of tie pins and anchors throughout the walls; chimney bracing; reinforcement of the bakery room walls; and installation of a plywood diaphragm at the roof and second floor. Rehabilitation work included waterproofing the foundation; new electrical wiring, outlets and fixtures; repairs to plaster finishes; repairs to doors and floors; construction and installation of historically-appropriate windows on the second floor; construction of a new stairway; and repainting the house. This historic asset is now in good condition and will be used as a visitor contact station and a ranger office and storage facility.



Archeologists excavate the fossil remains of a pygmy mammoth, an extinct species whose remains are found only on the Channel Islands.

# Priorities & Strategies

## Operations Priorities



Chumash children celebrate their cultural history on the Channel Islands.

The park's management team has identified critical needs to meet operational standards over the next five years. After implementing these priorities, the park will have addressed most of the needs identified in the business plan. It is important to note that these priorities, like the current operations section, reflect not only what the park requires, but also take into account the feasibility of supporting new staff. Consequently, there are many other needs, such as the implementation of additional inventory and monitoring protocols that the park needs in the long-term that are not listed here.

Going forward, the park must allocate a portion of any new funding to support operations, including maintenance and transportation relating to any new facilities.

### Science and education for Marine Protected Areas (\$499,000)

Newly established marine reserves in the park provide an opportunity to rebuild fishery-depleted populations, restore integrity and resilience of kelp forests, and bolster adjacent fisheries in and around the park. This funding will allow the park to work with partners to prevent the extinction of the endangered white abalone, measure and improve performance of existing reserves, improve reserve designs, and connect fishing communities and others with the park by improving communication regarding resource conditions and the effects of conservation programs. The additional staffing needed to accomplish this goal is two interpreters/educators, two resource personnel, and additional non-labor funding for transportation support.



A rocky intertidal zone off of Santa Rosa Island.

### Cultural resources and museum collections preservation (\$466,000)

Only about one-third of the park's archeological sites have been recorded, and Native American burial sites, which are continually being exposed through erosion, require stabilization and reburial. Half of the park's historic structures are in fair or poor condition, and cultural resources are not addressed sufficiently in the park's education programs. With increased funding, the historic structures and museum collections would receive regular maintenance and specialized preservation treatment. Educational exhibits and programs would highlight the park's cultural heritage, and archeological sites and burials would be preserved and protected from increased visitation, development and erosion. Four FTE are required to accomplish these goals.

### Environmental compliance, planning, and protection (\$200,000)

Channel Islands National Park is taking many significant actions to restore and protect its unique island and marine ecosystems, including the removal of nonnative plants and animals, prevention of accidental introductions of non-natives, restoration of extirpated species such as bald eagles, construction or upgrading of facilities, and implementation planning pursuant to the GMP. These actions require significant collaboration and support by the general public. Two positions, a planner and an environmental specialist, would be dedicated to achieving these purposes.



### **Connecting the park to the people (\$482,000)**

Specialists in media development, education, and community outreach (4.5 FTE) are required to meet the increased public demand for outreach and education services associated with the 20% expansion of park, newly established marine reserves, and other management issues. This funding will allow the park to work with partners to connect the value of park resources to extended audiences. Special emphasis will be directed to bringing the park to the people via distance learning using the latest educational technologies.

### **Concessions management (\$90,000)**

Park concessions management needs are rapidly growing in volume and complexity as the park continues to acquire new lands and visitation increases. The park currently manages three concessions contracts for transportation services, as well as numerous incidental business permits for activities including kayaking guide services, sightseeing, whale watching, multi-day sailing, and educational sailing schools. Public interest and demand for increased on-island commercial services and a broader range of activities creates a significant concessions workload, which will likely evolve into increased concessions operations upon completion of the revised GMP, currently underway. Current park oversight is inadequate and the increasing workload demands a full-time specialist.

### **Transportation operations/logistics and maintenance support (\$480,000)**

The park has identified several support activities requiring additional base funding. Support activities include the maintenance, facilities operations, and vessel operations that allow the park to accomplish its mission. Over the past several years, base increases have targeted specific new programs, but have not included funding to support the expansion of existing programs. There is currently little funding for vessel maintenance, which requires a full-time person assigned to maintaining the vessels, as well as funds for the annual haul out of each boat. Further, rising fuel costs over the last several years have cut into the support budget. Maintenance and facilities operations have been particularly affected, and rising personnel costs have created division-level

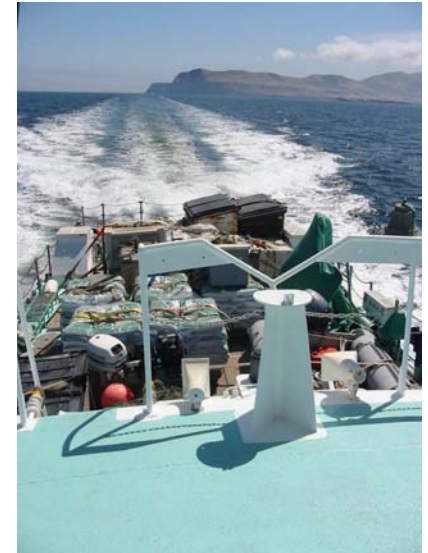
budget deficits, eliminating discretionary funds and the ability to purchase supplies and equipment.

### **Endangered island fox recovery**

In FY2005, the park received a \$477,000 increase in base funding to recover the island fox. This effort will be underway for at least the next 10 years, but it is anticipated that the financial resources required will gradually decrease as fox populations begin to stabilize. Due to this longer term commitment, the park was able to hire nine fox technicians. Captive breeding and protective efforts have prevented the extinction of this species and are bringing about a slow recovery of fox populations. While no additional resources are required to continue the recovery effort at this time, it is a continued priority for the park and an example of targeted fiscal resources making a direct impact on natural resources.

### **Law enforcement for Marine Protected Areas Phase II**

Phase I of this program was funded in FY2005 with a base increase of \$321,000; however to compete the program, an additional 4.3 FTE and \$526,000 is needed. The park includes approximately 125,000 acres of marine waters, where the majority of visitor use occurs. Many of these waters were recently designated as Marine Protected Areas, but currently the park only has the capacity to carry out limited local patrols seasonally in small boats at three islands with funding obtained under Phase I. Due to these circumstances, the park continues to see increased marine patrolling as a priority. This additional funding would provide for a safe, professional, and consistent marine patrol presence in the park. The marine patrol program will also enable more visitor contact, providing for a higher level of visitor education as well as increased resource and visitor protection.



Park vessels, such as the *Ocean Ranger*, carry supplies and equipment to the islands.



Concessionaires provide regular transportation to the islands for park staff and visitors.

## Investment Priorities



The park's marine life exhibit provides an opportunity to experience the underwater world for visitors who do not to travel to the islands.



Marine invertebrates, such as this bat star, are monitored by the park.

Future capital investments constitute potential one-time expenditures that further develop the capabilities of the park to achieve its mission. In total, the park has identified over \$23 million in potential investment projects spread across all park programs, including \$9 million in deferred maintenance for park facilities, utilities, and historic structures. The projects of top priority for the park are listed here in order of importance.

### **Restore Santa Cruz Island (\$618,000)**

Channel Islands National Park and The Nature Conservancy are undertaking a comprehensive program to restore the unique natural ecosystems of Santa Cruz Island. Major actions in the restoration include the removal of non-native plants and animals. This proposal will augment the funded restoration work already underway by focusing on non-native plant removal and the collection of rare plant seeds. Research on the Channel Islands and elsewhere has shown that restoration actions must consider the entire ecosystem in order to avoid unintended negative consequences. This work will focus on creating the conditions that will allow native plant communities to positively respond to the eradication of pigs.

### **Provide boat for marine law enforcement (\$2,300,000)**

With the newly established Marine Protected Areas (MPAs), law enforcement requirements have increased. While the park has a boat fleet, none of these vessels meet the speed and configuration requirements to support law enforcement and visitor protection operations safely or efficiently. The park possesses three small patrol boats that are stationed on three of the park islands. These boats are able to patrol four of the eleven MPAs, leaving seven unpatrolled. This leaves certain areas of the park more accessible to damage of natural resources and slower response time relating to visitor safety needs. Although this would add another boat to the fleet, it is projected that this boat would be sustained operationally through several means; Law Enforcement for Marine Protected Areas Phase II Settlement Money obtained through the U.S. Attorney's Office regarding Oil Spill Litigation, and shared operational expenses through the NPS/National

Oceanic and Atmospheric Administration Law Enforcement Memorandum of Agreement.

### **Establish baseline ecological data for marine reserves (\$239,000)**

Ecological monitoring of the State marine reserves is essential to evaluating their effectiveness and restoring ecosystem health. As the park contains the largest network of marine reserves in the U.S., it provides the best opportunity to demonstrate the conservation value of no-harvest zones. This project will expand the park's existing kelp forest monitoring program by establishing sixteen new fixed sites inside and outside of reserve boundaries, providing baseline data to properly evaluate the effectiveness of the new marine reserves. The project was granted funding for three years in FY2005, with two years of funding still remaining.

### **Provide accessible visitor center marine life exhibit (\$338,000)**

The visitor center contains a marine life exhibit to provide visitors unable to travel to the remote islands with a taste of the underwater world. The park would like to increase opportunities for revealing these stories to visitors with sight, hearing, or mobility impairments. The proposed modifications include a sea-cave walkway that provides wheelchair access to all sides of the pool, view ports at wheelchair height, interactive tactile devices, Braille signs, tactile species identification tiles, sound effects, and flipbooks designed to enhance the interpretive experience. The reconstruction will also provide an opportunity for the park to repair a leak which loses 120 gallons of water per month, causing damage to the flooring and objects in the adjacent bookstore.

**Replace steel staircase (\$256,000)**

Originally constructed by the U.S. Coast Guard in 1932, an eighty step staircase is the only access to Anacapa Island from the lower dock landing to the upper landing. It was last replaced in 1985 and was sandblasted and painted in 1995. Since then, the staircase has suffered severe erosion and has lost significant metal thickness from rust, posing a safety risk. Failure to replace this staircase could require that island facilities be closed to the public in the near future.

**Produce new film for outreach (\$1,000,000)**

The park film is outdated and needs to be recreated to represent the many changes that have occurred within the park since the film was produced over twenty years ago. Since 1985, the park has significantly expanded to include all of Santa Rosa Island and additional land on Santa Cruz Island. Visitor services and facilities have dramatically increased, as has visitor access to the outer islands. In addition, critical long-term park management practices and resource protection issues, such as marine reserves and the decline of the island fox, are not presently addressed in this important interpretive tool. The current film also does not take into consideration the considerable cultural diversity of visitors to the park's mainland visitor center, limiting its effectiveness as an outreach tool.

**Replace Santa Rosa Island pier (\$5,700,000)**

The current pier on Santa Rosa Island is in disrepair and must be reconstructed to allow continued access for visitors via private boat or concession operations. The proposed work involves the demolition of the existing 700 foot long steel pile pier. The deteriorated pier will be replaced with a new pier consisting of steel pile with protective coating, wood deck, and safety railing.

**Stabilize eroding and damaged archeological sites (\$92,000)**

The wealth and diversity of the park's archeological sites are cited in the park's enabling legislation as part of its national significance. Wind and water erosion and damage by non-native animals threaten a large number of sites within the park, some of which contain Native American burials. Sites along

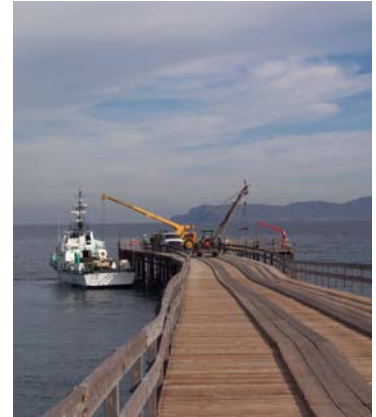
dunes and cliffs are subject to heavy winds and wave action, and many will be totally eradicated without immediate treatment. Funds will be used to stabilize eroding and threatened archeological sites throughout park property, primarily on Santa Rosa, Santa Cruz and San Miguel islands. Stabilization efforts will involve placement of sterile soil and a variety of stabilization materials combined with planting of native vegetation. Stabilizing treatments will be undertaken in consultation with the Chumash and performed by a park archeologist in collaboration with park maintenance and natural resources staff.

**Replace visitor center tower stairwell exhibit (\$730,000)**

The park plans to replace the twenty-seven year-old marine exhibit in the tower stairwell of the mainland visitor center in Ventura. The new exhibit will build upon the original concept of a journey from 2,000 feet to the surface of the kelp forest. The visitor will virtually explore this underwater world to better understand its value and the current threats it faces. The new interactive and hands-on exhibits will be compliant with Federal ADA regulations and will highlight the roles of NOAA's National Marine Sanctuary and Fisheries programs, the NPS, and California Department of Fish and Game in protecting important natural resources.

**Analyze ecological trends and review of monitoring protocols (\$250,000)**

Since the early 1980s, the park has been collecting information about the health and status of many of the terrestrial and marine communities in the park. In its role as an inventory and monitoring prototype, the park has collected a robust set of ecological data and has provided other park units across the country with model protocols for ecological monitoring. In order to make the current data useful to current and future park management, the park must: 1) review the data to evaluate ecological trends and determine if sufficient statistical power to detect change is being achieved, and 2) revise protocols to include new technologies, achieve target statistical power, and ensure scientific validity and utility.



Park staff and visitors access Santa Rosa via this 700 foot long steel pier, currently in need of repairs.



The current park film was produced in 1985.



## Strategies for Reducing Costs

The park recognizes that increases in appropriated base funding alone will be insufficient for eliminating shortfalls. However, there are opportunities for the park to change or alter the way it spends its current funding. This business plan suggests the following cost reduction strategies:

### **Reduce boat fleet**

The size and type of the park's boat fleet exceeds its operational requirements. With one boat nearing the end of its useful life, this is an opportune time to reassess park needs and reorganize the fleet configuration. Non-law enforcement park operations require the regular transport of park personnel and cargo to and from the islands, as well as the ability to conduct marine ecological monitoring activities in park waters. Reducing the park fleet by one boat would not dramatically decrease its ability to perform these activities. Some non-cargo transportation needs can be met by the concessionaire and certain dive operations can be covered through partnership with California Department of Fish and Game, the Channel Island National Marine Sanctuary, or potentially contracted out to local dive boats when park boats are unavailable. Savings come from a reduction in the labor requirements for an additional captain and required maintenance.  
*Estimated annual net benefit: \$138,000*

### **Reduce technological redundancy**

In 2004, the park began migrating computer users to laptops to meet the mobile needs of some staff. As a result, many park staff now have two computers. By reducing twenty unnecessary computers from its inventory, the park can realize savings from maintenance and licensing, while continuing to meet computing needs. However, many of the existing laptops are old and would need to be replaced. Therefore, cost savings may not be realized until the second year after implementation. Additionally, a thorough analysis of all communications equipment needs, including radios, fixed telephones, cellular phones and pagers, should be conducted. Unused or excess equipment should be eliminated.  
*Estimated annual net benefit: \$10,000-\$15,000*

### **Re-examine duty stations, per diem, and travel**

Staff duty-stationed on islands are entitled a remote worksite allowance of \$10 per day. When these staff work at the mainland headquarters, they are entitled to the Ventura per diem rate of \$150 per day. This larger per diem rate assumes that staff require lodging and dining, even though most of the island staff maintain mainland residences. The park should reduce the per diem rate for these staff and reexamine duty station assignments.

*Estimated annual net benefit: \$52,000*

### **Expand use of renewable energy**

Channel Islands National Park should partner with Joshua Tree and other national parks in southern California to investigate the feasibility of developing a photovoltaic system. With a minimal startup investment, the system would supply electricity into the Southern California Edison grid equaling or exceeding the amount of electricity used by the partnering parks. This short-term investment would result in long-term energy availability, zero air pollutant emissions, and the reallocation of annual electricity costs into other park operations.

*Estimated annual net benefit after investment: \$31,000*



Solar panels power park facilities on Santa Rosa Island, reducing on-island fuel consumption.



**Reorganize dispatch, logistics and scheduling**

Two full time employees within the park currently handle traditional dispatch duties, scheduling, boat logistics, and housing, while also serving as administrative assistants for two divisions. Implementing a computerized logistics and scheduling system to replace the current paper-based system would increase efficiency and free up staff time to accomplish other administrative tasks. Further analysis may also show that the park could purchase twenty-four hour dispatch services from the US Forest Service, potentially receiving more coverage for less than the cost of current staffing.

*Estimated annual net benefit: 1 FTE as GS-7*



Transportation logistics at the park require significant staff time and coordination.

**Analyze visitor center operations**

The park currently requires two rangers to staff the visitor center on the weekends. An analysis of the weekend duties might allow for the dispatcher to cover the visitor center breaks and lunch, while enabling the second visitor center ranger to accompany visitors on the concession boat, reducing the cost of staffing the visitor center. In addition, unless a strong and continual partnership can be maintained with the Channel Islands National Marine Sanctuary and US Forest Service, the Santa Barbara Harbor Outdoors Visitor Contact Station should be discontinued.

*Estimated annual net benefit: \$50,000*

**Increase shared resources within network**

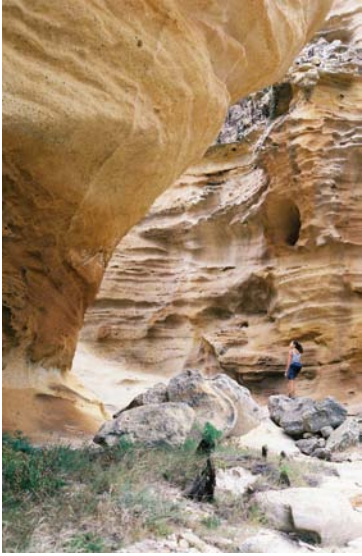
The park has identified several permanent positions that do not require full time staffing. The park currently shares its IT specialist; discussions with other parks in the Mediterranean Coast Network - Santa Monica Mountains National Recreation Area and Cabrillo National Monument - have shown the potential for other positions to be shared. These positions include a safety officer, museum curator, librarian, physical scientist, biostatistician, and several inventory and monitoring staff. Roles best suited for sharing are those whose tasks can be completed without requiring the person's physical presence in the park. Many of these positions could either be placed in a park or within the California Mediterranean Research Learning Center framework.

*Estimated annual net benefit: up to \$200,000*

**Incorporate business practices**

Given current funding constraints, it is critical that the park be able to ensure not only the effective use of available funds, but that the funds are used to maximize support of the park mission. Beginning in fiscal year 2006, the park will implement the Budget Cost Projection Module (BCP). The BCP is designed to provide park management with financial information regarding the future costs of operations. The BCP provides management the opportunity to look into the future and determine how much of their current operations will cost in out years.

## Strategies for Increasing Non-Appropriated Funding



Wind and water carved canyons draw visitors to the islands.



The remote nature and unique features of San Miguel makes the island an ideal getaway for visitors seeking nature and solitude.

This business plan has identified several areas in which the park can increase non-appropriated funding, including:

### **Reestablish a Friends group for Channel Islands National Park**

A Friends group for the park would primarily serve to build and support the relationship between the park, local communities, and interested constituents like volunteers. It could also provide access to private funding for specific projects that further preserve, protect, and enhance Channel Islands National Park. A Friends group's non-profit structure and fundraising ability could generate financial support for the park through many means, including:

- Creating a trust or endowment to allow for access, management, and expansion of recurring visitor programs (e.g. underwater interpretive program);
- Operating donation boxes and information stations at the headquarters visitor center, island contact stations, and concessionaires offices and vessels;
- Launching Channel Islands National Park specialty license plates. In addition to increasing visibility for the park, similar programs have generated significant revenues.

The park should also consider expanding current partnerships with other relevant groups, including: the Santa Cruz Island Foundation, the Friends of the Island Fox, the Friends Group for the Channel Islands National Marine Sanctuary, and National Park Foundation. The realization of monetary benefits from the development of a Friends group would probably take several years and increase over time.

*Estimated annual net benefit after five years: \$150,000 to \$300,000*

### **Improve and expand concessions management**

A renewed focus on concessions management could result in an increase in the number, diversity, and oversight of recreational opportunities in the park and the surrounding National Marine Sanctuary. The resulting contracts could

bring increased revenue to the park. Additional activities and potential concessions opportunities may include horseback riding, snorkel rental, and multi-island live-aboard excursions. Further analysis of current concessions contracts may also allow for a minimal surcharge for all trips to Anacapa and San Miguel islands to offset the significant costs associated with providing and maintaining the underwater interpretive program on Anacapa Island and guided hikes on San Miguel Island.

*Estimated annual net benefit: \$70,000 to \$100,000*

### **Develop ecotourism opportunities**

The spectacular cultural and natural resources of the Channel Islands have the potential to attract visitors interested in multi-day, educational ecotourism activities. Opportunities include natural and cultural history courses similar to those provided by the Yosemite Institute, guide services and pinniped observation on San Miguel Island, recreation and historical living opportunities on Santa Rosa Island, and Galapagos-style boat expeditions. Establishing and managing these concessions activities could generate significant revenues.

*Estimated annual net benefit: \$40,000 to \$50,000*

### **Evaluate fee opportunities**

Given the challenge of moving and providing materials and personnel to the islands, it may be appropriate to recover more of the costs associated with these services. The park currently provides subsidized housing and transportation for researchers and transportation and maintenance services for partners such as The Nature Conservancy and the US Navy. Cost recovery would enable the park to continue to provide these services and ensure their consistency and quality.

*Estimated annual net benefit: \$40,000*

### **Generate revenue beyond cost recovery**

The park owns the only landing craft on the coast of California from San Francisco to Long Beach and has ample opportunity to generate revenue. A change in the park's enabling legislation would allow the park to charge fees to other agencies for use of the landing craft and generate revenue to support operations. Parks with similarly unique transportation specialties, such as Isle Royale National Park, have enacted similar measures based on unique resources.

*Estimated annual net benefit: \$200,000*



The *Surf Ranger* is the only landing craft in the region and the only means to transport cargo to Scorpion Harbor.

### **Charge private boats for using harbors**

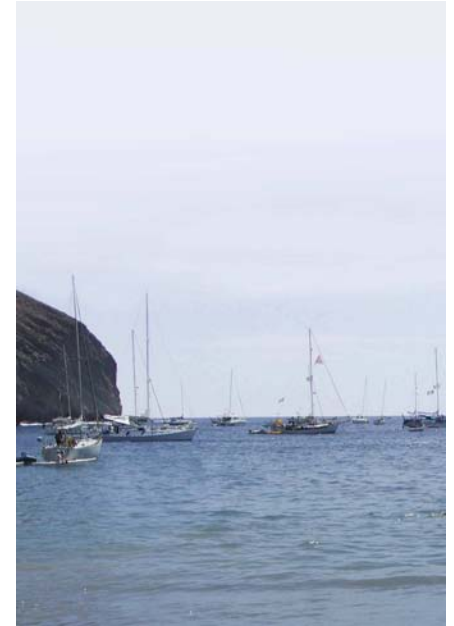
Currently, an unlimited number of private boats can anchor in the park's sheltered harbors. By charging an anchoring fee or establishing moorings, the park could limit the number and ecological impacts of these boats and generate revenue. There are start-up costs, liabilities, and ownership issues to resolve before implementation.

*Estimated annual net benefit: \$90,000 to \$150,000*

### **Pursue corporate partnerships**

In 1999 and 2001, the park used recycled plastic lumber donated by Unilever to rebuild a deck for the mainland visitor center. Over the years, the park has also enjoyed significant assistance from oil companies, who have oil drilling platforms in the channel, with the transportation of building materials for housing projects to and from the islands using corporate vessels. While the park is aware undue influence, relationships can be formed between the park and businesses for the mutual benefit of both, enhancing the parks ability to meet its objectives without jeopardizing its credibility. The list of areas that businesses may want to contribute to include the underwater interpretive program, construction projects, trail maintenance, visitor center improvements, and distance learning.

*Estimated annual benefit: \$100,000 to \$200,000*



Private boaters use the park's sheltered harbors.



The park has benefited from the support of a number of partner organizations.



## Inventory and Monitoring



Colorful garibaldi abound in kelp forests and rocky reefs off the islands.



Park divers collect monitoring data.

An important component of conservation at Channel Islands National Park is monitoring the health of terrestrial and marine ecosystems. The protection, restoration, and stewardship of natural resources requires the establishment of baseline data regarding park “vital signs” that can then be monitored for changes over time. Without these baselines, it is difficult for the park to understand the status and health of its ecosystems, identify significant declines, or determine the success of management programs. The monitoring data helps the park determine where and when to intervene and how far its restoration actions should go.

The park began ecological monitoring in the marine environment in 1982. In 1988, the park published twelve monitoring protocols which it determined were critical to understanding the marine and terrestrial components of the park. In 1991, Channel Islands National Park was selected by the NPS as a prototype Long-term Ecological Monitoring park. This allowed the park to initiate monitoring in the terrestrial environment and to strengthen marine monitoring. Monitoring of park ecosystems involves collaborating with numerous partners such as NOAA, U.S. Geological Survey, California Department of Fish and Game, non-profit organizations such as The Nature Conservancy and Institute for Wildlife Studies, as well as several universities and museums. These partnerships are important, not just because of the dollar value they bring to the park, but also because of their value in scientific expertise and outreach. The park now also participates in an expanded inventory and monitoring program with its partners in the Mediterranean Coast Network.

The park faces a number of challenges in continuing its inventory and monitoring program. Only a fraction of the program, as originally designed, can be supported with available funds. Since funding was granted in 1992, the park’s land-base and costs have increased substantially. Yearly base funding increases have not been able to cover rising costs of personnel, program support, or expansion to incorporate new lands, marine protected areas, and technology. The park is increasingly reliant on variable non-base funding to support core monitoring programs. This

requires substantial staff time in grant-writing, and has left the park short of field personnel to conduct data collection, meaning some monitoring of critical resources has had to be discontinued.

The park feels that a fully-funded ecological monitoring program is critical to its stewardship mission. The funding estimated as needed to fully support a core monitoring program is \$1,485,063 and 17.2 FTE. The following table describes the park’s current monitoring program, and the extent to which it is currently base funded and implemented (using base and non-base funds):

Program element	Year begun	Percent base funded	Percent implemented
Pinnipeds	1982	NA *	100%
Seabirds	1982	25 %	30%
Rocky intertidal	1982	90 %	95%
Kelp forests	1982	60 %	90%
Terrestrial vertebrates	1988	10 % **	10%
Landbirds	1988	60 %	65%
Terrestrial vegetation	1988	70 %	90%
Park visitors	1988	75 %	75%
Weather	1988	60 %	60%
Terrestrial invertebrates	--	0 %	0%
Water quality	--	0 %	0%
Sandy beach and lagoon	1990	25 %	25%

\* Conducted by NOAA Fisheries

\*\* It is assumed that this program will be fully funded once the fox recovery program is completed and funding can be shifted from recovery to ecological monitoring.



Channel Islands National Park has already seen the benefits of ecological monitoring in its ability to document and address population changes in threatened marine species, seabirds, and terrestrial species. Management decisions and restoration actions have been based on this quantitative historical information, and have strengthened the park's abilities to receive funding to undertake groundbreaking restoration actions. Increasing knowledge regarding park vital signs is also important in connecting people to the park; an increase in the public's understanding of island resources helps to promote public support and endorsement of the park's mission. A robust and continuing ecological monitoring program is critical to the park's ability to be an effective long-term steward of its ecological resources.



Marine invertebrate monitoring is critical to understanding ecosystem health.

### Ecological Monitoring: Guiding the Management of Natural Resources

The monitoring of 'vital signs' at Channel Islands National Park provides concrete benefits for protecting the park's rare plants, animals, and ecosystems. Examples include:

- Early detection of the catastrophic decline of endemic island foxes, which resulted in a captive breeding program for the remaining small population of foxes on one of the three islands. Without the monitoring program it is almost certain that at least one subspecies of island fox would have gone extinct before the severity of the decline was apparent.
- The recent establishment of marine protected areas, where no harvest is allowed, relied heavily on data collected from the kelp forest monitoring program. Monitoring data identified a decline in the park's marine ecosystems over the past twenty-three years and identified fishing as an important cause of the changes.
- Marine monitoring allows scientists and policymakers to separate the confounding effects of multiple factors, such as El Niño events, pollution, and fishing, on coastal ecosystems, to support sound decision-making.
- Fisheries for several species of abalone have been closed by the State of California, based largely on information collected by the park's ecological monitoring program. The monitoring data provided both an early warning of change and information regarding the likely causes of the population declines.
- The ecological impacts of non-native animals and the changes following their removal are documented. Monitoring programs identified rats as a significant cause of mortality of rare seabirds on Anacapa Island, which now show a positive response to the recent eradication of rats. Vegetation monitoring documents improvements in ecological conditions after the removal of sheep from Santa Cruz Island, rabbits from Santa Barbara Island, and cattle from Santa Rosa Island.

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*The park manages the islands on an ecosystem level, focusing on the removal of non-native species.*

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## Island Restoration

The Channel Islands, sometimes called the Galapagos of North America, support an incredible amount of biodiversity and productivity. Ten percent of the terrestrial plants and 30% of the terrestrial animals found on the park's islands are endemic, and the islands provide critical breeding habitat for seabirds and pinnipeds that forage over thousands of square miles of ocean.

Though their isolation has protected the islands from habitat conversion, the last two hundred years of human habitation have significantly degraded island ecosystems, particularly through the introduction of non-native sheep, pigs, rabbits, rats, and invasive plants. The establishment of the park in 1980 highlighted the global significance of the islands' resources and since then the park has worked to actively managed the islands on an ecosystem level. To date, substantial progress has been made in their restoring the Channel Island's ecological integrity. Protecting the park from new invasions will be a key component of future resource management strategies.

### **Ecological recovery with the removal of grazers**

A century of grazing by non-native sheep, pigs, rabbits, cattle, deer, and elk has significantly disturbed the native vegetation and ecological processes of the islands. The profound recovery of vegetation on San Miguel Island following the removal of sheep by the US Navy in the mid-1960s offers a benchmark for contemporary park restoration efforts. Similarly, the resiliency of island ecosystems was demonstrated by the recovery of the endangered island night lizard and feared-extinct Santa Barbara Island live-forever following the complete eradication of rabbits from Santa Barbara Island in 1980. The park anticipates a recovery of island vegetation on Santa Rosa Island following the recent removal of cattle and on Santa Cruz Island following the recent removal of sheep and the anticipated complete removal of pigs.



This 1930 aerial photo shows that shifting sand dunes predominated San Miguel Island during the era of sheep grazing.



This aerial photo from 2000 shows the recovery of vegetation following the removal of sheep.

### **Rat eradication on Anacapa Island**

Anacapa Island's cliffs, caves, and crevices are important breeding habitat for rare seabirds, including Xantus's murrelets, ash storm-petrels, and the largest California brown pelican colony in the United States. During most of the twentieth century, non-native black rats preyed heavily on seabird eggs and chicks. Using \$3 million in settlement money from a southern California oil spill that damaged seabird populations, the park planned and implemented a rat eradication program starting in 2001. After two phases of rodenticide application, rats were successfully eliminated from the island in 2002. Pre- and post-treatment monitoring has demonstrated a substantial recovery of Xantus's murrelets and other island wildlife, including the Anacapa deer mouse, side-blotched lizard, and slender salamander.



A Xantus's murrelet egg eaten by black rats.

### **Pig eradication and the endemic island fox**

Golden eagles are not historical residents of the Channel Islands, but the decline of territorial bald eagles due to DDT, as well as the abundance of feral piglets as a new source of prey, allowed golden eagles to colonize the islands beginning in the mid-1990s. Facilitated by the loss of native shrub cover from over-grazing, the eagles also occasionally preyed upon endemic island foxes on San Miguel, Santa Cruz, and Santa Rosa islands. By the late 1990s, this new source of predation pressure had driven the three subspecies of island fox to near extinction. In 1999, the park, working closely with The Nature Conservancy, began to implement a comprehensive fox recovery program involving golden eagle relocation, bald eagle re-establishment, island fox captive breeding, and pig eradication. At the end of that year, the entire population of island foxes was protected in captivity. In 2004, wild foxes had successfully reproduced, and were gradually being re-released on the three islands. Because of this program, fox numbers have increased dramatically on each of the islands: San Miguel from fourteen to sixty-four foxes; Santa Rosa from fourteen to seventy-two foxes; and Santa Cruz from sixty to more than 150 foxes. These efforts demonstrate the success that rapid action in restoration can have on preserving important park resources.



An island fox surrounded by native vegetation.



A tagged bald eagle being released on the islands.



## Greening the Channel Islands



The park uses a blend of conventional diesel and biodiesel.



The large-scale photovoltaic system on Santa Rosa Island.

One of the operational goals of Channel Islands National Park is to eliminate reliance on non-renewable energy wherever possible. As new facilities are constructed, the park works to maximize the use of greening technology. Currently there are seventy-two renewable energy applications in operation, ranging from small solar installations to a large-scale hybrid wind/photovoltaic system on Santa Rosa Island. In 2000, the NPS Green Energy Parks Initiative allowed Channel Islands National Park to incorporate the extensive use of biodiesel fuel for its vessel and vehicle fleet and make Anacapa and Santa Barbara islands petroleum-free.

The greening measures taking place within the park are not only environmentally-responsible, they also provide the park with substantial long-term financial savings. The logistics of supplying fuel to off-shore islands has significant costs associated with fuel delivery. For example, Santa Rosa Island lies forty-five miles offshore: the delivery of heavy fuel loads to this island requires additional fuel and transit time for the park vessels, meaning that fuel used on the islands consumes 12% more energy and produces more net pollution than fuel used on the mainland. In addition, transporting fuel requires significant employee time, adding 57% to the fuel cost of the park. The transportation of fuel also involves the risk of contaminating the fragile marine and island environments that the park is charged with protecting.

For these reasons, the fuel reduction strategies enacted by the park have substantial environmental and financial benefits. Greening measures on Anacapa Island have reduced diesel consumption by 96%, and on Santa Barbara Island there has been an estimated annual savings of over 4,000 gallons of fuel through the installation of solar energy systems. It is estimated that renewable energy installations on the islands have reduced or precluded the use of over 28,000 gallons of fuel per year. Island-based power generation through solar and wind energy also reduces the environmental risks of fuel transportation, as well as the potential clean-up costs of a fuel spill.

Limited water supplies also place a significant constraint on park operations. The incorporation of water conservation measures, such as low-flush toilets, have helped to reduce the logistical and fuel costs of transporting water to two of the park islands with no water resources. Water conservation practices have also reduced the extraction of water from the larger islands' limited aquifers.

The mainland office and visitor center also incorporate environmentally-friendly technologies. Sixty percent of the mainland vehicle fleet are alternative fuel vehicles. The visitor center deck, picnic tables, benches, and recycling bins are all constructed with material made from recycled detergent bottles. Photovoltaics, waterless urinals, and compact fluorescent lighting also reduce the overall resource consumption of park operations.

The park's active and innovative approaches to conservation on the islands and the mainland offer substantial opportunities for future savings to the park in energy costs and resource consumption. Much of the infrastructure for these projects has already paid for itself in energy and resource savings. In recognition of its greening initiatives, the park has received multiple awards for environmental stewardship, including the White House Closing Circle Award, the Federal Energy Management Award, and the Department of the Interior's Environmental Achievement Award. The park is continuing to expand its greening programs, planning for the installation of additional solar panels on the islands.



## Connecting the Park to the People

People are drawn to islands, partly due to their mystique, inherent beauty, and diverse and isolated nature. The remoteness of the Channel Islands naturally limits the number of people fortunate enough to visit. Travel to the islands is restricted by transportation, cost, and time constraints. Consequently, bringing the park to the people takes on added importance.

Making the park relevant to a growing and diverse population is essential to long-term protection of the unparalleled marine and terrestrial resources of the Channel Islands. A core park mission is to foster an understanding and appreciation of the significant natural, historical, cultural, and recreational resources with people of all ages. The park is cultivating meaningful connections between people and park resources through a variety of educational formats, including informal and formal programs, volunteer and citizen science programs, distance learning, community outreach, life-long learning, research, publications, exhibits, films, media, and the Internet.

Working with partners, the park plans to provide distance learning opportunities using technology to share resource values with the public via cable television, the Internet, and Internet II, a high-speed transmission academic network developed by and linking universities, government, and private industry. This approach allows people of varying interests, ages, and backgrounds, some of whom may never have the opportunity to visit, to connect remotely with the islands and vicariously experience park resources through live programs. These distant but personal interactions can enhance understanding and appreciation of park resources values and encourage stewardship.

Broadcasts such as the underwater interpretive program, which features the diverse kelp forest on Anacapa Island, have provided successful outreach tools at the park over the past twenty years. Today's technology extends the reach of this program from the island to the mainland visitor center and into classrooms and other institutions of learning across the country. Significant park stories can be told through additional programs, allowing people to enhance their understanding of research and resource management initiatives and issues.

Given the significant and dynamic nature of their resources, parks, in particular, have great value for place-based formal learning opportunities. Place-based learning connects students to real-life tangible issues associated with local culture, environment, and history, providing authentic and more meaningful learning experience. Curriculum, based on state and federal standards, has already been developed for the Channel Islands to use as a foundation for place-based distance learning education. Distance learning programs also offer informal experiences for people of all ages, including new and diverse audiences.

Together with the park's established methods for educating onsite visitors, distance learning will reach a greater number of people, including non-traditional park users, inviting them to learn about, appreciate, and ultimately participate in preserving the parks' rich natural and cultural heritage.



Visitors enjoy the view from an Anacapa outlook.

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